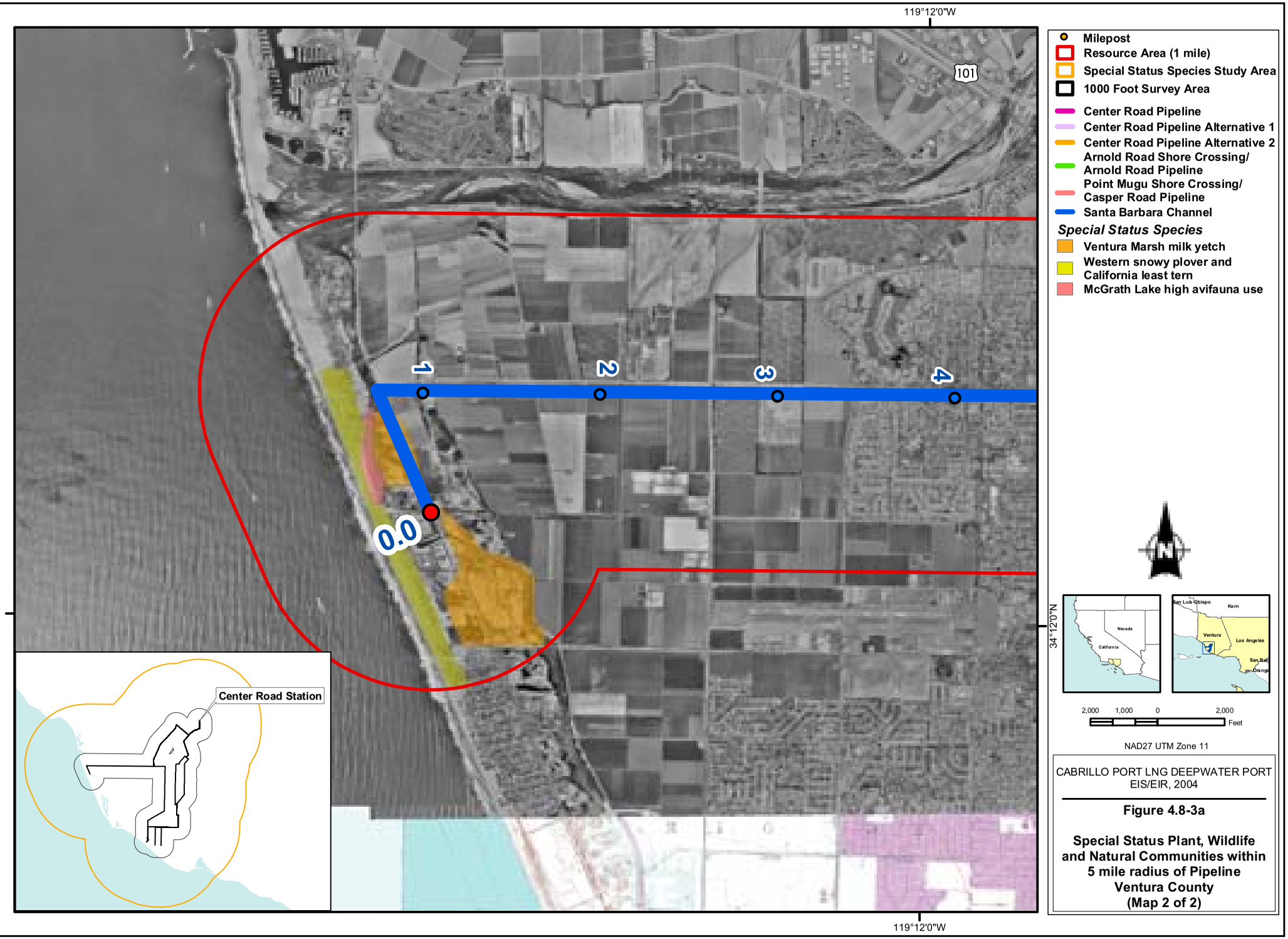


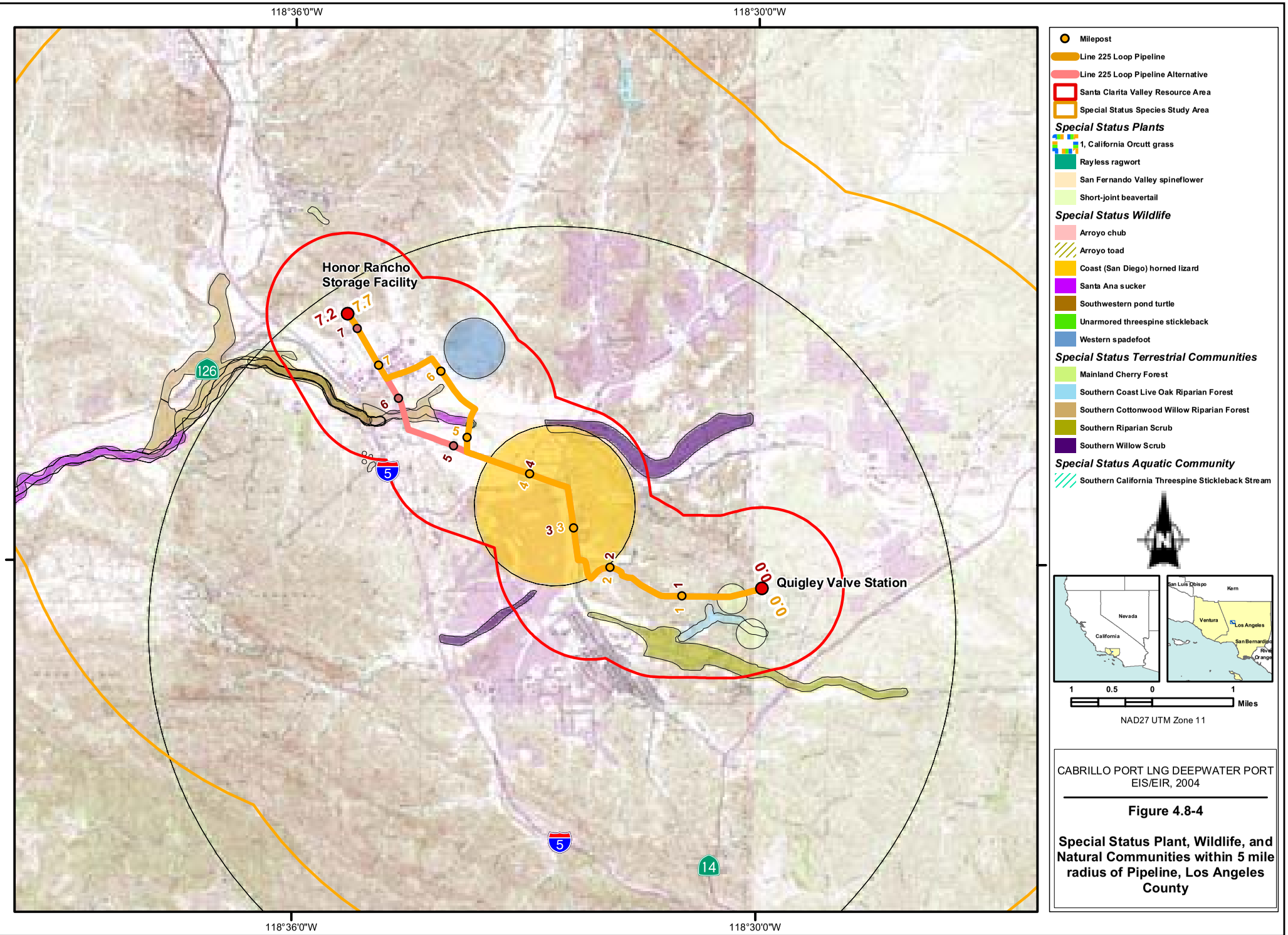
CABRILLO PORT LNG DEEPWATER PORT
EIS/EIR, 2004

Figure 4.8-3a

Special Status Plant, Wildlife and Natural Communities within 5 mile radius of Pipeline Ventura County (Map 2 of 2)

\\BUFNT4\GIS\SanFrancisco\CabrilloPort\Maps\MXD\Letter\Figure-4-8-3a.mxd GRC 10-21-04

Source: Entrix 2004, E & E Field Visits 2004



CABRILLO PORT LNG DEEPWATER PORT
EIS/EIR, 2004

Figure 4.8-4

Special Status Plant, Wildlife, and Natural Communities within 5 mile radius of Pipeline, Los Angeles County

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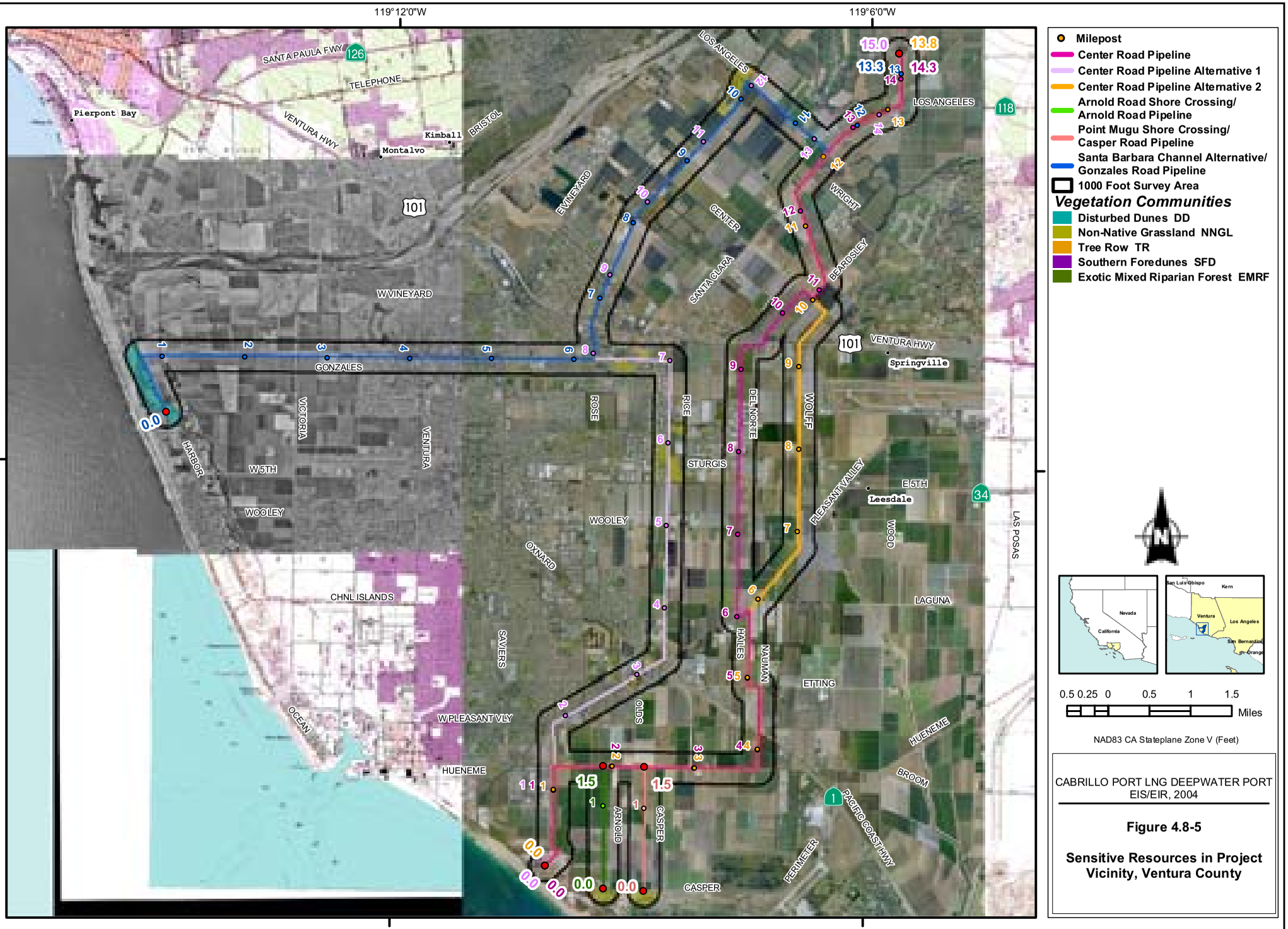
Source: Entrix 2004



CABRILLO PORT LNG DEEPWATER PORT
EIS/EIR, 2004

Figure 4.8-5

Sensitive Resources in Project Vicinity, Ventura County

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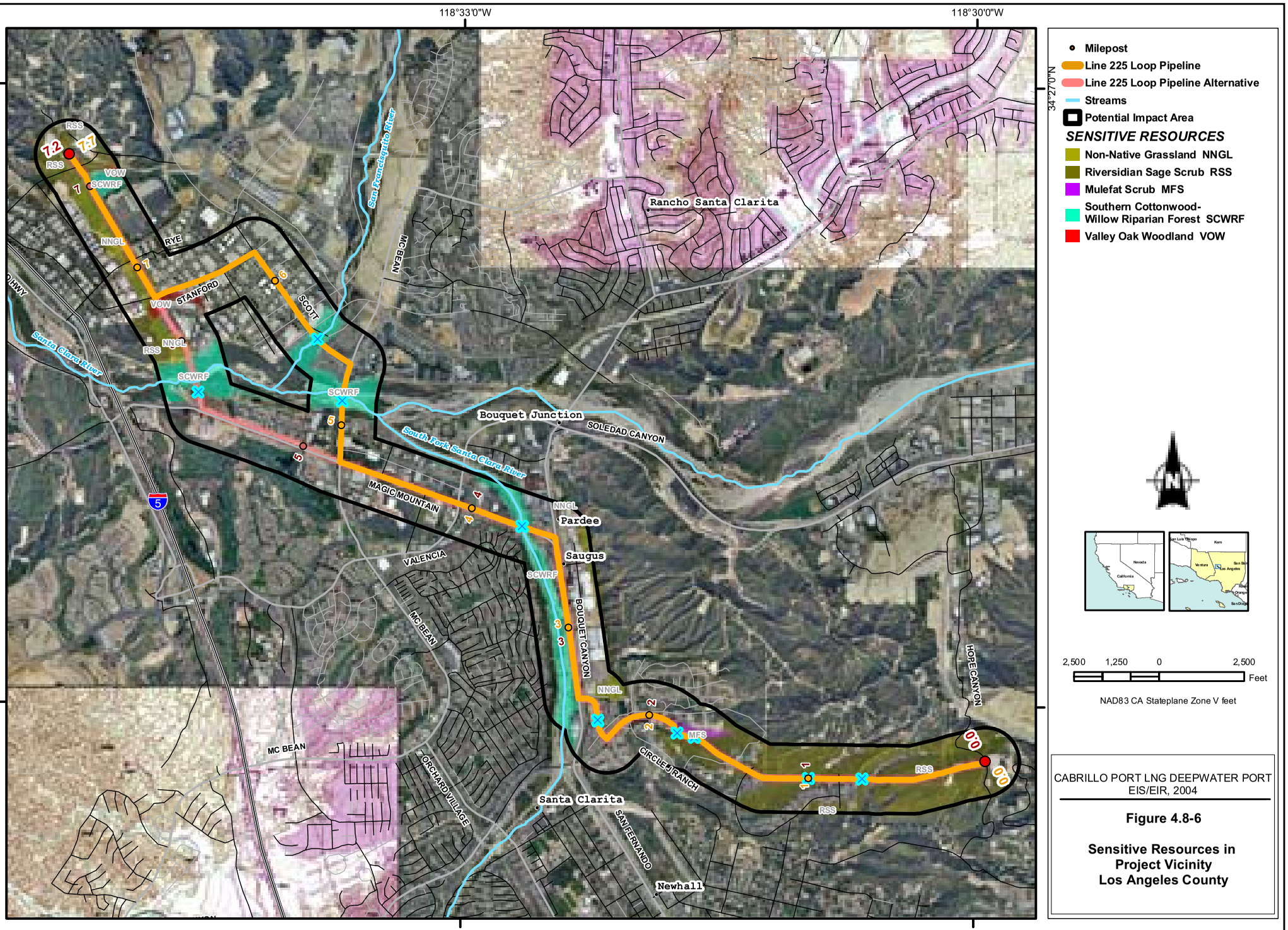
Source: Entrix 2004, E&E Site Visits 2004


118°33'0"W
118°30'0"W
34°27'0"N
Milepost
Line 225 Loop Pipeline
Line 225 Loop Pipeline Alternative
Streams
Potential Impact Area
SENSITIVE RESOURCES
Non-Native Grassland NNGL
Riversidian Sage Scrub RSS
Mulefat Scrub MFS
Southern Cottonwood-Willow Riparian Forest SCWRF
Valley Oak Woodland VOW
Rancho Santa Clarita
Bouquet Junction
SOLEDAD CANYON
South Fork Santa Clara River
Santa Clara River
San Francisquito River
MC BEAN
MAGIC MOUNTAIN
VALENCIA
Pardee
Saugus
BOUQUET CANYON
HOPE CANYON
CIRCLE J RANCH
ORCHARD VILLAGE
SAN FERNANDO
Santa Clarita
Newhall
STANFORD
SCOTT
RYE
SCWRF
NNGL
RSS
MFS
VOW
2,500 1,250 0 2,500
Feet
NAD83 CA Stateplane Zone V feet
CABRILLO PORT LNG DEEPWATER PORT
EIS/EIR, 2004
Figure 4.8-6
Sensitive Resources in Project Vicinity
Los Angeles County
Source: Entrix 2004
\\BUFNT4\gis\sanfrancisco\maps\mxd\letter\Fig4-8-6.mxd 10/19/2004 GRC

Vegetation and Wetlands

Field surveys were completed in January, March, and May 2004 and identified communities within an 80-foot (24 m) wide corridor centered on the pipeline ROW extending up to 1,000 feet (305 m) from the center. The field surveys identified the plant communities according to the California Department of Fish and Game's (CDFG's) *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). Sawyer and Keeler-Wolf (1995) also describe plant communities. Figures 4.8-1A, B, and C identify vegetation communities along the pipeline.

Several vegetative communities were identified in the Oxnard Plain within 1,000 feet (305 m) of the pipeline routes: agricultural and developed lands, non-native grasslands, southern foredunes, tree rows, and exotic mixed riparian forest. Table 4.8-3, placed at the end of this Section, provides the locations of tree rows identified by MP, the types of tree species, and the linear feet that may occur within the proposed pipeline ROWs. Along the Center Road Pipeline route, there are five potential jurisdictional features—three are unnamed agricultural drains, and the remaining two are Ferro Ditch and Mugu Drain.

Wildlife and Aquatic Species

A 1998 bioassessment study of Mugu Lagoon documented the presence of the Federal endangered tidewater gobies (*Eucyclogobius newberryi*), arrow goby, cheekspot goby, diamond turbot, staghoren sculpin, mullet, topsmelt, and longjaw mudsucker (*Gillichthys mirabilis*). Two Federal- and State-listed freshwater fish species are the Federal endangered steelhead (*Onchoryncus mykiss irideus*) Southern California Evolutionarily Significant Unit (ESU), and the Federal/State endangered unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) (California Resources Agency 2004).

Two drainages that are tidally influenced are the agricultural drainage at MP 0.25 and the Beardsley Wash-Revlon Slough Complex, which empties into Mugu Lagoon via Calleguas Creek. Despite hydraulic connection to Calleguas Creek and Mugu Lagoon, the proposed Project crosses these drainages approximately 8 miles (13 km) upstream from the Pacific Ocean, which leaves little possibility for the occurrence of estuarine species in the proposed Project area. Aquatic resources using the agricultural and flood control drainages may include estuarine fish species in the saltwater/freshwater mixing zone, and exotic fish and amphibian species that are adaptable to ongoing disturbances. Native fish species enter these drainages only when there is a hydraulic connection to a natural water body, adequate aquatic habitat, and no migration barriers. A fish migration barrier exists within Revlon Slough, which is connected to Calleguas Creek.

Common mammals that are expected be found along the pipeline ROW may include the California ground squirrel, house mouse, striped skunk, raccoons, opossum, and coyote. The more common bird species that may occur include starling, American crow, American robin, and the house finch. Raptors and turkey vultures are known to

use the tree rows for nesting and roosting sites. The tree rows may also provide habitat to support monarch butterflies.

Special Status Species

The CNDDB identified several special status species that may occur in the Oxnard Plain. The Coulter's Goldfields (*Lasthenia glabrata* ssp. *coulteri*) are typically found in the upper end of tidal inundation; however, the species has been documented in inland areas on alkaline soils. The species has also been found growing in mesic grasslands near vernal pools (Sierra Club 2004). Field surveys completed in January, March, and May 2004 did not identify habitat suitable for the Coulter's Goldfields. Table 4.8-2 provides information regarding the habitats used by these species and the potential for occurrence along the pipeline ROW.

4.8.1.3 Santa Clarita Valley

The proposed Line 225 Pipeline Loop route and alternative under consideration traverse the Santa Clarita Valley for 7.7 miles (12.4 km). The pipeline routes traverse developed lands, non-native grasslands, Riversidian sage scrub, mulefat scrub, southern cottonwood-willow riparian forest, and valley oak woodlands. Table 4.8-4 summarizes the vegetation communities found along the Line 225 Pipeline Loop and the alternative route.

Vegetation and Wetlands

The habitat surveys performed in January, March, and May 2004 documented plant communities within 1,000 feet (305 m) of the proposed pipeline ROWs that included developed land, non-native grassland, valley oak woodland, Riversidian sage scrub, southern cottonwood-willow riparian forest, and mulefat scrub. Figures 4.8-1A, B, and C present the vegetation communities documented during the field surveys.

Los Angeles County has designated five areas in the Santa Clarita Valley as Significant Ecological Areas (SEAs). The County considers the areas ecologically fragile lands that are valuable as habitat for plant and animal communities. The proposed Line 225 Pipeline Loop would cross the SEA for the Santa Clara River and San Francisquito Canyon. The Santa Clara River is the largest SEA and supports wetlands, coastal sage scrub, oak woodland, and riparian woodlands. The Santa Clara River represents the last major unchannelized river in Los Angeles County (Santa Clarita Valley [SCV] Technical Background Report).

The San Francisquito Canyon SEA was established by the County to preserve habitat associated with the unarmored threespine stickleback, a Federal- and State-listed endangered species (*Gasterosteus aculeatus williamsoni*). The San Francisquito Canyon SEA supports riparian vegetation along the canyon streambed channel. Grasslands and chaparral habitat are found on the walls of the canyon.

Two potential jurisdictional wetland features identified on the proposed Line 225 Pipeline Loop include the South Fork Santa Clara River and the Santa Clara River. The

Santa Clara River, the South Fork Santa Clara River, and San Francisquito Creek are characterized by low-gradient channels with large, active floodplains. The substrate consists almost entirely of sand. The reaches of these drainages that exist within the proposed Project ROW are intermittent in the dry season but experience flow during the rainy season.

Wildlife and Aquatic Species

The quality of habitat occurring within the Santa Clarita Valley varies. High-quality habitat is found within the Santa Clara River and San Francisquito Canyon, with lower-quality habitat occurring in developed land. The proposed Line 225 Pipeline Loop would traverse the Santa Clara River and San Francisquito Canyon habitat that is considered high-quality habitat. The remaining pipeline ROW would traverse low-quality habitat for wildlife and aquatic species because of the limited habitat available to support wildlife. The quality of habitat was based on field surveys, review of existing literature, potential to support sensitive species, and surrounding land use.

Common mammals expected to occur along the pipeline ROW include the California ground squirrel, striped skunk, raccoons, opossum, coyote, and mule deer. Amphibians and reptiles may include Western fence lizard, garter snake, California mountain kingsnake, California newt, and the Pacific tree frog.

The more common bird species that may occur include mourning dove, Northern flicker, Western scrub jay, Northern mockingbird, Brewer's blackbird, redtail hawk, and turkey vulture.

Special Status Species

The only recognized habitats for unarmored threespine stickleback populations (including designated essential habitat in Los Angeles County) consist of two separate stream reaches of the Santa Clara River and a short reach of San Francisquito Canyon. The Santa Clara reaches are separated by an intermittent reach from the Interstate 5 highway bridge upstream to Lang Canyon. The proposed Santa Clara River crossings would occur within this separate reach. This reach was not included as essential habitat because of its intermittent nature during the dry season. When the reach experiences flow, unarmored threespine stickleback can occur in the low-gradient channel. In addition, the Santa Ana sucker may occur within the area of the Santa Clara River crossings.

In San Francisquito Canyon, unarmored threespine stickleback essential habitat is located from the southern boundary of the Angeles National Forest upstream approximately 8.4 miles (13.5 km) to San Francisquito Powerhouse No. 1 near the junction with Clearwater Canyon (United States Fish and Wildlife Service [USFWS] 2004). The proposed pipeline crossing at San Francisquito Creek occurs downstream of this essential habitat designation. When the reach of San Francisquito Creek within the Project area experiences flow, threespine stickleback habitat can exist in the form of

a low-gradient channel with sandy substrate. As such, unarmored threespine sticklebacks most likely occur within this reach only as migrants during the wet season.

The State endangered San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandina*) has been documented north of the proposed Line 225 Pipeline Loop MP 3.5 approximately 0.6 mile (1 km) at the end of Newhall Ranch Road (River Park Draft Environmental Impact Report 2004).

The southwestern arroyo toad (*Bufo californicus*), a Federal endangered/State species of concern, has been observed west of the confluence of San Francisquito Creek and the Santa Clara River (Newhall Ranch Project). The Least bell's vireo, a Federal endangered/State species of concern, may occur within southern cottonwood-willow riparian habitat within the Project area. The Federal/State species of concern Western spadefoot toad (*Scaphiopus hammondii*) has also been found within seasonal rainpools within the River Park development site approximately 0.6 mile (1 km) north of MP 3.5.

Special status species within 1 mile (1.6 km) of the Project area are listed in Table 4.8-5, as well as their habitat and their potential to be in the area.

4.8.2 Regulatory Setting

Table 4.8-6 summarizes the major Federal, State, and local laws and regulations relating to terrestrial biological resources.

Table 4.8-6 Major Laws, Regulatory Requirements, and Plans for Biological Resources – Terrestrial

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
General Protection	
California Species Preservation Act of 1970; California Fish and Game Code §900-903. - *CDFG*	• Provides for the protection and enhancement of the amphibians, birds, fish, mammals, and reptiles of California.
California Fish and Game Code §3503. - *CDFG*	• Prohibits the taking and possession of any bird egg or nest, except as otherwise provided by this code or subsequent regulations.
California Fish and Game Code §1930-1933. - *CDFG*	• Provides for the Significant Natural Area program and database.
Ventura County Protected Tree Ordinance - *Ventura County Planning Division*	• Provides protection for designated tree species.
Coastal Area Plan of the Ventura County General	• Provides for the protection of designated environmentally sensitive areas in the Coastal Zone, including tidepools and beaches, creek

Table 4.8-6 Major Laws, Regulatory Requirements, and Plans for Biological Resources – Terrestrial

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
Plan *- Ventura County Planning Division*	areas in the Coastal Zone, including tidepools and beaches, creek corridors, coastal dunes, wetlands, and Mugu Lagoon.
City of Oxnard General Plan *- Oxnard Planning Commission*	• Provides for the preservation and conservation of open-space land for natural resources, such as riparian habitat, wetlands, and beaches and dunes.
County of Los Angeles General Plan *- Los Angeles County*	• Includes measures to preserve and protect prime agricultural lands, forests, fisheries, SEAs, and biotic resources. SEAs include the marine shore and nearshore zone, especially lagoons and saltwater marshes; watersheds; streams; and riparian vegetation.
City of Santa Clarita General Plan. *- City of Santa Clarita*	• Includes measures to protect and preserve five SEAs within the City of Santa Clarita and Santa Clarita Valley. Three of these SEAs (the Santa Clara River, San Francisquito Canyon, and Valley Oaks Savanna) are within 1 mile (1.6 km) of the Project area. • Requires environmental studies to be performed to assess the potential for damage or destruction of an SEA prior to approval of any plans for development in an area identified with an SEA.
Endangered Species	
Endangered Species Act (ESA) of 1973, 16 USC §1531 et seq.; 50 CFR Parts 17 and 222. *- USFWS, National Oceanic and Atmospheric Administration (NOAA)*	• Prohibits actions that may jeopardize the continued existence of threatened and endangered species. • Protects and manages plants and animals and delineates areas of critical habitat for threatened and endangered species.
California Endangered Species Act of 1984 (CESA); California Fish and Game Code §2050-2116. *- CDFG*	• Provides for the protection of rare, T&E plants and animals, as recognized by the CDFG, and prohibits the taking of such species without its authorization. • Requires a permit to take a state-listed species through incidental or otherwise lawful activities pursuant to §2081(b) of CESA. • Provides protection for those species that are designated as candidates for threatened or endangered listings.
California Coastal Act, Chapter 3, Article 5, Section 30240	• Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. • Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts that would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.
California Environmental Quality Act of 1970, (Public Resources Code Section 21000-21177).	• Establishes requirements and procedures for state and local agency review of the environmental effects of projects proposed within their jurisdictions. • Requires that a plant or animal that is not listed but can be shown to

Table 4.8-6 Major Laws, Regulatory Requirements, and Plans for Biological Resources – Terrestrial

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
- *California State Lands Commission (CSLC)*	meet the criteria for listing under the CESA shall be given the same consideration as a listed species.
California Native Plant Protection Act of 1977; California Fish and Game Code §1900 et seq. - *CDFG*	• Includes provisions that prohibit the taking of listed rare or endangered plants from the wild and a salvage requirement for landowners. • Provides the CDFG the authority to designate native plants as endangered or rare and provides specific protection measures for identified populations.
Migratory Birds/Birds of Prey/Protected Birds	
Migratory Bird Treaty Act (MBTA): 16 USC §703-711; 50 CFR Subchapter B. - *USFWS*	• Protects migratory birds. • Prohibits taking not authorized by federal regulation. • The current list of species protected by MBTA can be found in Title 50, CFR §10.13. • Does not cover non-native species, such as house sparrows, European starlings, and rock doves.
California Fish and Game Code §3503.5. - *CDFG*	• Prohibits the taking, possession, or destruction of any birds-of-prey and their eggs and nests, in the orders Falconiformes or Strigiformes, except as otherwise provided by this code or subsequent regulations. • Does not provide for the issuance of an incidental take permit.
California Fish and Game Code §3513– Adoption of the MBTA. - *CDFG*	• Provides for the adoption of the MBTA's provisions. • Does not include statutory or regulatory mechanism for obtaining an incidental take permit for the loss of non-game, migratory birds.
California Fish and Game Code §3511 and 5050. - *CDFG*	• Prohibits the taking and possession of birds and reptiles listed as "fully protected."
Invasive Species	
Executive Order 13112 – Invasive Species. - *Invasive Species Council*	• Establishes an Invasive Species Council whose members include the Secretaries of State, Treasury, Defense, Interior, Agriculture, Commerce, Transportation, and the Administrator of the USEPA. • Establishes an advisory committee to the Council and requires preparation of a national Invasive Species Management Plan. • Orders Council to provide national leadership concerning invasive species and to ensure that federal agency activities concerning invasive species are coordinated, complementary, cost-efficient, and effective.
Wetlands/Waterbodies/Floodplains	
Clean Water Act of 1977, Section 404; 33 USC §1251-1376; 30 CFR §330.5(1)(26). - *USACE*	• Regulates restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters, including rivers, wetlands, sloughs. • Requires permit for any activity that results in the deposit of dredge or fill material within the "Ordinary High Water Mark" of Waters of the U.S.

Table 4.8-6 Major Laws, Regulatory Requirements, and Plans for Biological Resources – Terrestrial

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
Rivers and Harbors Act Section 10, 33 USC § 401 et seq. - *USACE*	• Applies to waters of the U.S. • Requires 401 and 404 certifications.
Executive Order 11988, Floodplain Management, and 11990, Protection of Wetlands. - *USACE*	• Requires that government agencies, in carrying out their responsibilities, provide leadership and take action to restore and preserve the natural and beneficial values served by floodplains and wetlands.
California Fish and Game Code, Section 1600-1603. - *CDFG*	• Regulates activities that will "substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed of a natural watercourse" that supports wildlife resources. • Includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. • Requires a Streambed Alteration Agreement for any project that would impact a river, stream, or lake. • Requires agreement to implement mitigation measures if fish or wildlife would be substantially adversely affected.

4.8.3 Significance Criteria

For the purposes of the draft environmental impact study/environmental impact report (EIS/EIR), biological (terrestrial) impacts are considered significant if the Project:

- Adversely affects a population of a threatened, endangered, regulated, or other sensitive species by reducing its numbers; altering behavior, reproduction, or survival; or causing loss or disturbance of habitat;
- Would have a substantial adverse effect, either directly or indirectly, on any listed, proposed, or candidate endangered or threatened species listed under either the California or Federal ESA. Effects could include reducing the number or restricting the range of a threatened or endangered plant or animal;
- Causes a net loss in the functional habitat value of a sensitive biological habitat, including salt, freshwater, or brackish marsh; marine mammal haul-out or breeding area; eelgrass; river mouth; coastal lagoons or estuaries; seabird rookery; or area of special biological significance;
- Causes potential for movement or migration of wildlife to be impeded;
- Would have a long-term adverse effect on federally protected wetlands, as defined by Section 404 of the CWA, through direct removal, filling, hydrological interruption, or other means;

- Violates Federal or State water quality standards from instream elevated turbidity or reduced dissolved oxygen, leading to changes in biota functioning abilities;
- Disturbs a substantial part of a vegetation type within the local region to the point where natural or enhanced regeneration would not restore the resource to pre-disturbance conditions in at least three years;
- Causes a substantial permanent adverse effect on wetland, riparian, or other sensitive habitat identified in local or regional plans, policies, or regulations, or by the CDFG, USFWS, or NOAA Fisheries;
- Introduces new, or leads to the expanded range of existing, noxious weed species or soil pests, so that they interfere with successful revegetation or crop production;
- Causes a potential public health hazard through the use, production, or disposal of materials that pose a hazard to wildlife or fish populations in the area;
- Adversely affects a species, natural community, or habitat that is recognized specifically as biologically significant in local, State, or Federal policies, statutes, or regulations;
- Directly impacts nesting migratory birds, including raptors, protected under the MBTA;
- Fails to comply with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflicts with provisions of an ongoing wetland restoration project; adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or State habitat conservation plan or biological resource preservation policy;
- Introduces invasive wildlife species into native, riparian, or wetland habitat areas where native species could become displaced or the genetic integrity of the native ecosystem could be degraded; or
- Substantially interferes with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.

4.8.4 Impact Analysis and Mitigation

Potential impacts of the proposed Project on terrestrial biological resources and mitigation measures are summarized in Table 4.8-7. Applicant-proposed mitigation measures (AMM) and agency-recommended mitigation measures (MM) are defined in Section 4.1, “Introduction to Environmental Analysis”.

Table 4.8-7 Summary of Terrestrial Biological Resources Impacts and Mitigation Measures

Impact	Mitigation Measure(s)
TerrBio-1: Construction activities could cause a temporary increase in sedimentation and soil erosion, and expose contaminated soils during trenching activities, which could cover or damage plants (Class II).	**AMM TerrBio-1a. Erosion Control.** To minimize sedimentation, the Applicant would implement measures during construction. **MM TerrBio-1b. Spill Containment/ Management.** The Applicant shall implement the following measures to control and manage spills **MM WAT-5a: Prepare and Implement HDD Contingency Plan.** The Applicant shall develop a release of drilling muds contingency plan to minimize the potential for releases of drilling muds **MM WAT-5b. Strategic Location for Drilling Muds and Cuttings Pit.** The Applicant shall ensure a pit has been excavated at the exit hole to collect and contain the drilling muds and cuttings.
TerrBio-2: Upland vegetation removal during onshore pipeline construction, maintenance, and repair activities could result in the loss of special status plants (Class III).	**AMM TerrBio-2a. Pre-Construction Surveys.** The Applicant would conduct pre-construction, in-season surveys according to appropriate survey protocols for special status species, and any federally listed species specified by the USFWS or the CDFG. **AMM TerrBio-2b. Biological Resources Mitigation and Monitoring Plan (BRMIMP).** Surveys would be conducted within any areas potentially impacted by Project activities during construction or operation where special status species potentially occur. **AMM TerrBio-2c. Employee Environmental Awareness Program (EEAP).** The Applicant would conduct an employee awareness program before groundbreaking to explain the applicable endangered species laws and any endangered species concerns to contractors working in the area. **AMM TerrBio-2d. Biological Monitoring.** The Applicant would use a qualified Biological Monitor to conduct and supervise the EEAP program and to conduct on-site biological monitoring. **AMM TerrBio-2e. Confine Activity to Identified Right-of-Way (ROW).** The Applicant would limit all proposed roadway construction to the existing roadway surface wherever special status plant species or habitats occur adjacent to the roadway
TerrBio-3: Upland vegetation removal during onshore pipeline construction and maintenance activities could cause temporary or permanent loss of upland natural vegetation, altering wildlife habitat and increasing erosion potential (Class II).	**AMM TerrBio-3a. Seed Bank Retention.** The Applicant would implement measures for seed bank retention. **MM TerrBio-3b. Tree Avoidance and Replacement.** The Applicant shall, to the extent possible, avoid, minimize, and compensate for impacts on trees. **MM TerrBio-3c**. Riparian Avoidance and Restoration. The Applicant shall avoid, minimize, and compensate for impacts on riparian habitat during construction due to trenching, open cut crossings of

Table 4.8-7 Summary of Terrestrial Biological Resources Impacts and Mitigation Measures

Impact	Mitigation Measure(s)
	waters of the United States, and HDD pit excavation.
TerrBio-4: Construction, such as trenching, in wetlands or waters of the United States could remove vegetation, disrupt the hydrology of the wetlands within and adjacent to the construction area, or alter the habitat for special status plant species (Class II).	**MM TerrBio-4a**. **Avoid, Minimize, or Reduce Impacts on Wetlands.** Impacts on wetlands or waters of the United States that provide habitat for special status plant species shall be avoided, minimized, or reduced.
TerrBio-5: Construction-related disturbance could provide an opportunity and seedbed for the invasion of weeds, which could adversely affect special status plant species or habitats, and upland vegetation (Class III).	**AMM TerrBio-5a. Weed Management.** The Applicant would implement measures to prevent the spread of invasive weeds.
TerrBio-6: Construction activities could temporarily remove wildlife habitat, thereby reducing its availability to local wildlife populations (Class II).	**AMM TerrBio-6a. Minimize Disturbance at Water Crossings.** The Applicant would not perform open-trench crossings at any stream, wetland feature, or other waters of the United States unless otherwise identified by required permits. **MM TerrBio-6b**. **Species Surveys.** The Applicant shall conduct focused habitat evaluations and species surveys to determine the potential for the occurrence of special status species or their habitats in the proposed Project area. **MM WAT-5a: Prepare and Implement HDD Contingency Plan.** The Applicant shall develop a release of drilling muds contingency plan to minimize the potential for releases of drilling muds **MM WAT-5b. Strategic Location for Drilling Muds and Cuttings Pit.** The Applicant shall ensure a pit has been excavated at the exit hole to collect and contain the drilling muds and cuttings.
TerrBio-7: Construction activities associated with pipeline installation, staging areas, HDD locations, and access roads could cause the mortality of small mammals, reptiles, and other less-mobile species (Class III).	**AMM TerrBio-7a. Traffic Control.** The Applicant shall implement traffic management efforts as defined. **AMM TerrBio-7b. Work Area Enforcement.** The Applicant would follow certain measures to ensure site safety. **AMM TerrBio-7c. Trash Removal.** The Applicant would implement measures to ensure all trash would be properly contained, removed, and disposed of regularly.
TerrBio-8: Human disturbance during Project construction, operations, and maintenance could temporarily displace wildlife, cause them to avoid preferred habitat areas, or reduce their reproductive success (Class III).	**AMM TerrBio-2a. Pre-Construction Surveys** **AMM TerrBio-2b. Biological Resources Mitigation and Monitoring Plan (BRMIMP)** **AMM TerrBio-2c. Employee Environmental Awareness Program (EEAP)** **AMM TerrBio-2d. Biological Monitoring** **AMM TerrBio-2e. Confine Activity to Identified Right-of-Way (ROW)** **MM TerrBio-9c. Protect Specified Bird Species**

Table 4.8-7 Summary of Terrestrial Biological Resources Impacts and Mitigation Measures

Impact	Mitigation Measure(s)
TerrBio-9: Construction impacts could harass species, which could result in a take of an endangered species, causing a permanent impact (Class II).	**MM TerrBio-9a. Establish Buffer Zones.** The specific buffer zone distance shall be determined by the appropriate resource agencies (the CDFG and the USFWS). **MM TerrBio-9b. Protect Special Status Wildlife.** Where construction occurs within or near known or potential special status species habitat, the Applicant shall perform the actions as defined. **MM TerrBio-9c. Protect Specified Bird Species.** Where construction is proposed to occur near riparian or marsh habitats that support special status bird species, the Applicant shall limit construction periods to times outside the respective breeding season of the affected species. :

Impact TerrBio-1: Temporary Increase in Sedimentation

Construction activities could cause a temporary increase in sedimentation and soil erosion, and expose contaminated soils during trenching activities, which could cover or damage plants. The HDD procedures to install the pipelines beneath Ormond Beach may present remote potential for drilling fluid seepage. These construction methods could cause habitat degradation for sensitive plant species or wetlands (Class II).

Along the proposed Center Road Pipeline route, the salt marsh bird's beak (*Cordylanthus maritimus* spp. *maritimus*) is the only special status plant species that occurs within 1,000 feet (305 m) of the route near the beach adjacent to the Reliant Energy Ormond Beach Generating Station. In addition, other sensitive plant species may also occur within the Ormond Beach area but have not been documented by the CNDDB. Direct impacts on sensitive plant species are not expected because the pipelines would be installed using HDD to cross under the beach, and all construction equipment would be staged within the Reliant Energy Ormond Beach Generating Station. Additional impacts may be caused by an accidental release of drilling muds through the subsoil to the surface. An unanticipated release of drilling muds may be caused by pressurization of the HDD hole beyond the containment capability of the subsoil. Releases of drilling muds are addressed in Section 4.18, "Water Quality and Sediments."

The proposed Center Road Pipeline route north of the Reliant Energy Ormond Beach Generating Station contains agricultural land with exotic tree rows, urban developed lands, coastal sage scrub, and coast live oak woodlands. Trenching activities would disturb and expose soils, which may cause potential for erosion. If it rains during trenching, sedimentation or erosion could smother or damage special status plant species. Trenching may also expose contaminated soils that could be washed into sensitive plant communities adjacent to the pipeline ROW. The plant species could then be adversely affected. Contaminated soils encountered during construction

activities would require the Applicant to manage them in compliance with Federal, State, and local regulatory agency requirements (see Section 4.12, "Hazardous Materials"). The agricultural drain (CR-1) that would cross at MP 0.25 of the proposed Center Road Pipeline route flows indirectly into Mugu Lagoon and the Pacific Ocean within 1 mile (1.6 km). This drainage could contain the federally endangered tidewater goby. The Applicant has not determined whether trenching or HDD would be used to cross this approximately 35-foot (10.7-m) agricultural drainage or any other dirt-line drainage (CR-2, CR-6, MP-7, MP-8, MP-9, or MP-10). Trenching would mobilize more sediments than HDD, and would impact the bed and banks of streams and channels; however, no sediments would be mobilized by the HDD procedures. Use of HDD may cause an accidental release of drilling muds within the bed and banks of the stream or channel. If an accidental release of drilling muds were to occur, turbidity of the stream or channel waters would increase.

The other water body crossings on the Center Road Pipeline route are either concrete-lined flood control channels, dirt, or other unknown composition. For the Line 225 Pipeline Loop, the South Fork Santa Clara River, Santa Clara River, and San Francisquito Creek would have to be crossed. The South Fork Santa Clara River would be crossed using a closed girder bridge while the Santa Clara River and San Francisquito Creek would be crossed with open girder bridges. Other crossings, such as at concrete-lined flood control channels, may be crossed using existing road bridges or HDD. Dry watercourses or minor wet crossings would be crossed by open-cut trench. Engineering studies would be required to determine which installation method would be feasible, and which method would be permitted/approved by regulatory agencies. The special status species that occur in the water bodies along the Line 225 Pipeline Loop could be impacted by increased sedimentation and increased turbidity, which may stress these species or make the habitat unsuitable. Other surface water features along the ROW could be impacted by sedimentation from stormwater runoff, and increased erosion from exposed soil excavated during trenching activities. The Applicant proposes to avoid, reduce, or minimize impacts caused by soil erosion and sedimentation by implementing best management practices (BMPs) and developing an Erosion Control Plan and Stormwater Pollution Prevention and Containment Plan.

The Applicant has incorporated the following measures into the Project::

AMM TerrBio-1a. **Erosion Control.** The Applicant would comply with all permit requirements (Federal CWA Section 404 [obtaining a permit from the USACE], California Clean Water Act Section 401 certification, and CDFG Section 1601 Streambed Alteration Agreement) for all water crossings or disturbances. To minimize sedimentation, the Applicant would implement the following measures during construction:

- Clearing of vegetation shall be confined to the minimal area needed to conduct the construction activities;

- Any work near or adjacent to any stream, wetland, or waterway shall be protected through installation of erosion-control fencing or other devices such as hay bales, matting, or mulch;
- Work near or in waters of the U.S. shall be conducted in a manner that minimizes turbidity, erosion, and other water quality impacts concerning regulatory agencies;
- Any material that may be disturbed near or adjacent to streams or other waterways shall be contained to prevent any erosion into the adjacent streams or waterways;
- Construction equipment shall be stored and maintained at least 50 feet (15 m) from streams or other waterways;
- At the completion of construction activities, disturbed soils would be stabilized and erosion-control fencing would remain until restoration activities ensure that soil is properly stabilized;
- BMPs shall be incorporated into the construction activities; and
- A Stormwater Pollution Prevention Plan shall be implemented.

Mitigation Measures for Impact TerrBio-1: Temporary Increase in Sedimentation

MM TerrBio-1b. **Spill Containment/Management.** The Applicant shall implement the following measures to control and manage spills:

- When working near waterways, the contractor shall have an emergency spill containment kit to contain and remove spilled fuels and hydraulic fluids;
- When feasible, equipment and vehicles shall be fueled and maintained in a designated Maintenance and Staging Area. Equipment refueling or storage of hazardous or petroleum materials shall not occur within 100 feet (30.5 m) of wetlands, beaches, streams, or other waterways. If a 100-foot (30.5-m) buffer is not feasible for a given refueling activity, secondary containment shall be employed during the fuel transfer and the transfer shall be continuously monitored to prevent accidental spills;
- If a designated area is not available, construction equipment shall be stored and maintained at least 100 feet (30.5 m) from any jurisdictional stream channel, or as far away as available space allows in the ROW corridor. If this is not feasible at a particular crossing location because of space limitations or equipment breakdown, SoCalGas shall implement BMPs to ensure that equipment, fuel, and spoils do not enter the stream channel. Appropriate BMPs include safety fencing, secondary

containment for fuel tanks and fuel transfers, drip pans, spill kits, and proper disposal of waste products;

- A Spill Prevention, Control, and Countermeasure (SPCC) Plan shall be drafted to minimize potential impacts related to construction fluids in the event of equipment failure or leakage; and
- All contaminated soils and materials shall be excavated and removed from the site and disposed of appropriately to prevent sensitive animal species from becoming exposed to or killed by the effects of fuel, oil, or other chemicals used during construction.

MM WAT-5a. **HDD Contingency Plan** also applies here (see Section 4.18, "Water Quality and Sediments").

MM WAT-5b. **Strategic Location for Drilling Muds and Cuttings Pit** also applies here (see Section 4.18, "Water Quality and Sediments").

Impacts on water quality from sedimentation would have adverse impacts on sensitive plant species or wetlands, but with the implementation of these measures, impacts would be reduced to a less than significant level.

Impact TerrBio-2: Temporary or Permanent Impacts Regarding Construction, Operation, and Maintenance Effects on Rare and Special Status Plants

Upland vegetation removal during onshore pipeline construction, maintenance, and repair activities could result in the loss of special status plants (Class III).

A comprehensive botanical survey has not been conducted; therefore, it is not known whether the rare or special status plants along the proposed pipeline route are present. Specific information regarding special status species is derived from the CNDDB.

The salt marsh bird's beak is the only special status plant species within 1,000 feet (305 m) of the Center Road Pipeline route, and there is habitat for 14 special status plant species along the Line 225 Pipeline Loop. As discussed in Impact TerrBio-1, there would be no anticipated impacts on the salt marsh bird's beak. As a result, all construction activity near MP 0.0 would be within the grounds of the Reliant Energy Ormond Beach Generating Station. Impacts during normal pipeline maintenance would affect fewer acres because work would occur within the 25-foot (8-m) permanent easement or the 12-foot (3.7-m) ROW for operations and maintenance.

The loss of individual or known habitats of rare, threatened, or endangered plant species would be considered a significant impact. Such long-term impacts could occur where construction-related activities would remove or adversely affect buffer zones for such species. Pipeline construction and repair would include excavation, unearthing the pipeline, and backfilling; thus, vegetation would be removed and soil disturbed. These activities could remove sensitive vegetation types, individuals, seeds, or their habitat

during excavation; cause erosion/sedimentation during soil excavation or backfilling; deposit hazardous substances (e.g., diesel fuel); result in hydrologic alteration of wetlands or special status plant species from improper backfilling, compaction, or re-contouring; or facilitate weed invasions due to soil disturbance and seed import. Pipeline maintenance activities would include driving vehicles along the ROW. These activities could crush vegetation, cause erosion/sedimentation into habitat due to driving in wet soil conditions, and disturb the ground surface, thus facilitating weed invasion.

The Applicant has incorporated the following into the proposed Project:

AMM TerrBio-2a. **Pre-Construction Surveys.** The Applicant would conduct pre-construction, in-season surveys according to appropriate survey protocols for special status species, and any federally listed species specified by the USFWS or the CDFG. These surveys would occur before construction or maintenance activities are performed. Special status plant surveys would be performed in accordance with the USFWS, the CDFG, and the California Native Plant Society (CNPS) standard survey protocols.

The surveys would be conducted at the appropriate time of year in order to identify the presence or absence of special status plant populations occurring within the Project area, and the results would be mapped for avoidance during construction and maintenance. If listed plants are identified in the construction areas, attempts would be made to salvage plants and replant following the completion of the construction activities. The USFWS and the CDFG would be contacted before any translocation planting activities. All salvaged Federal- and State-listed plants would be replanted following completion of the work activities. Sensitive resources near construction areas would be identified and clearly marked for avoidance. Taking of Federal- or State-listed species would be avoided or would be consistent with appropriate permits and approvals.

Additional measures that would be undertaken include the following:

- Determination of rare species' potential habitat would be conducted by a qualified botanist. Flagging, mapping, and fencing would be established to protect any special status plant species within 200 feet (61 m) of the ROW;
- Any rare plant species within the 80-foot (24-m) ROW, work areas, access roads, and staging areas would be flagged, mapped on construction plans, and fenced to protect the area during construction;

- An Environmental Monitor would supervise installation of construction fencing, and appropriate buffer distances would be determined. The Monitor would have the authority to require installation of silt fencing in highly sensitive areas or under certain conditions where potential erosion may impact a special status plant species or its habitat; and
- If sensitive resources cannot be avoided, no work would be authorized until the appropriate resource agencies (CDFG, USFWS, and NOAA Fisheries) determine that the action would not result in significant biological impacts.

AMM TerrBio-2b. Biological Resources Mitigation and Monitoring Plan (BRMIMP). Surveys would be conducted within any areas potentially impacted by Project activities during construction or operation where special status species potentially occur. Surveys would be conducted in consultation and coordination with agencies and according to any existing species-level survey protocol guidelines. Results of the surveys would be used to develop a BRMIMP. The Applicant's proposed mitigation measures to address construction and maintenance effects on special status plant species include implementation of a BRMIMP. It would identify:

- All biological resources mitigation, monitoring, and compliance conditions specified in any acquired permits for the Project;
- All sensitive biological resources to be impacted, avoided, or mitigated by Project construction, operation, and closure;
- All required mitigation measures/avoidance strategies for each sensitive biological resource;
- All locations, on a map of suitable scale, of laydown areas and areas requiring temporary protection and avoidance during construction;
- Pre- and post-construction site photographs of all natural areas disturbed during Project construction activities;
- Duration of biological monitoring and a description of monitoring methodologies and frequency;
- Successful criteria for proposed mitigation;
- Remedial measures to be implemented if success criteria are not met; and
- A discussion of biological resource-related facility closure measures.

The Applicant's measures for the BRMIMP would include the following:

- Measures to avoid sensitive wildlife and plant species and habitats during pipeline construction, operations, and maintenance, including restrictions in sensitive coastal areas, mapping, and avoidance of sensitive resources;
- Restoration of sensitive vegetation types (coastal and riparian) potentially impacted during pipeline installation or repair, in accordance with other relevant mitigation measures;
- Inclusion of measures in the Operation and Maintenance Plan to avoid and minimize impacts on special status wildlife, plant species, bird-nesting areas, and sensitive vegetation types, such as riparian areas, during routine operation or maintenance activities;
- Creation of a map of the pipeline route depicting the location of all special status plant species, wildlife species, important nesting areas, and wetlands, to be used during necessary vehicular travel, for pedestrian use, or during equipment placement, to avoid these resources;
- Prohibition of disturbance to and clearing of coastal, riparian, and wetland vegetation during inspections. Travel and work areas shall be flagged and fenced before repair work to identify and avoid impacts on sensitive habitats as depicted on the pipeline map; and
- Maintenance of records of mitigation implementation on file at the pipeline maintenance office.

AMM TerrBio-2c. Employee Environmental Awareness Program (EEAP). The Applicant would conduct an employee awareness program before groundbreaking to explain the applicable endangered species laws and any endangered species concerns to contractors working in the area. Through the EEAP, all of the Applicant's employees and subcontractors shall be informed regarding the sensitive biological resources potentially occurring in the Project area. The Applicant's EEAP would*:*

- Discuss the locations and types of sensitive biological resources on the Project site and in adjacent areas;
- Present the reasons for protecting these resources;
- Present the meaning of various temporary and permanent habitat protection measures;
- Describe what to do if previously unidentified sensitive resources are encountered; and
- Identify whom to contact if there are further comments and questions regarding the material discussed in the program.

Each participant in the on-site EEAP would sign a statement declaring that he or she understands and would abide by the guidelines set forth in the program materials.

In addition, the Applicant would be responsible for ensuring that all Project personnel and subcontractors adhere to the guidelines and restrictions. Additional training would be conducted as needed—including morning "tailgate" sessions—to update crews as they advance into sensitive areas, and to educate new personnel brought on the job during the construction period. Project personnel would receive a hardhat sticker or be issued a card verifying compliance with the above mitigation measures. In addition, a record of all personnel trained during the Project would be maintained and made available for compliance verification.

AMM TerrBio-2d. **Biological Monitoring.** The Applicant would use a qualified Biological Monitor to conduct and supervise the EEAP program and to conduct on-site biological monitoring. According to the Applicant, the minimum qualifications of the Biological Monitor would be:

- A bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field;
- Three years of experience in field biology;
- One year of field experience with resources found in or near the Project area; and
- Ability to demonstrate the appropriate education and experience for the biological resource tasks that must be addressed during Project construction and operation.

In addition to the Applicant's qualifications for the Biological Monitor, the Biological Monitor would supervise and verify the implementation of the EEAP, the Erosion Control Plan, and the BRMIMP. The Biological Monitor would be present for all water crossings and be responsible for pre-construction surveys, environmental awareness training of construction crews, staking of sensitive resources, on-site monitoring, documentation of violations and compliance, coordination with contract compliance inspectors, and post-construction documentation. The Biological Monitor would be qualified to recognize potential construction effects on these resources. The Biological Monitor would ensure that State and/or Federal wetland protection guidelines are followed, and that an adequate setback of at least 15 feet (4.5 m) (or other distance mandated by the CDFG or the USFWS) is observed at wetland and/or riparian (woody vegetation) edges that provide suitable habitat for special status species.

AMM TerrBio-2e. Confine Activity to Identified Right-of-Way (ROW). The Applicant would limit all proposed roadway construction to the existing roadway surface wherever special status plant species or habitats occur adjacent to the roadway.

In addition, the Applicant would confine construction equipment to the roadway surface and associated activities to the 80-foot (24-m) ROW in all areas that support sensitive resources (e.g., near special status species adjacent to the work area), as defined on project maps. In sensitive areas that would be avoided by directional drilling, drill rigs and equipment staging would remain outside sensitive habitats, with an adequate buffer, consistent with established resource agency guidelines to avoid potential adverse effects on the resource. Work area boundaries would be delineated with flagging or other marking to minimize surface disturbance associated with vehicle straying, and to minimize potential for inadvertent worker intrusion into sensitive areas. Special habitat features identified by the Resource Monitor would be avoided, and previously disturbed areas within the Project ROW shall be utilized for stockpiling excavated materials, equipment storage, and vehicle parking. During EEAP training, construction personnel would be informed of the importance of remaining within the designated ROW. The Lead Resource Coordinator, with support from Resource Monitors, as necessary, would ensure that construction equipment and associated activities avoid any disturbance of sensitive resources outside the ROW.

Mitigation Measures for Impact TerrBio-2: Temporary or Permanent Impacts Regarding Construction, Operation, and Maintenance Effects on Rare and Special Status Plants

The measures described above would reduce adverse impacts to less than significant levels, and additional mitigation measures are not identified for this impact.

Impact TerrBio-3: Temporary or Permanent Vegetation Loss Due to Removal/ Habitat Removal

Upland vegetation removal during onshore pipeline construction and maintenance activities could cause temporary or permanent loss of upland natural vegetation, altering wildlife habitat and increasing erosion potential (Class II).

A temporary loss of vegetation would occur because of vegetation removal within the 80-foot (24-m) ROW during grading, trenching, pit excavation, and staging. Because most construction would occur in the existing roadway or ROW, and it would occur only on one side of the roadway, it is unlikely that the acreage identified would actually be removed. This temporary impact on agricultural fields and developed areas along the proposed Center Road Pipeline would be considered adverse, but not significant. However, removal of tree rows and exotic mixed riparian forest on the proposed Center

Road Pipeline route and natural vegetative communities along the Line 225 Pipeline Loop route would deplete habitat for special status species, which would be considered significant. Table 4.8-3 identifies the tree rows, species, and linear feet that could occur along the proposed Center Road Pipeline route. Engineering studies would determine the location of the pipeline within the existing roadway. Therefore, the linear feet of tree rows that could be removed during construction are unknown at this time. MM TerrBio-3b provides the tree avoidance and replacement requirements.

Construction and maintenance of the Project's aboveground facility would result in permanent loss of any vegetation associated with the existing facilities where construction would occur, because the facilities would be graveled to support on-site structures. The area permanently impacted is small and already developed; therefore, little to no vegetation would likely be removed.

The Applicant has incorporated the following measure into the Project:

AMM TerrBio-3a. Seed Bank Retention. The Applicant would implement the following measures for seed bank retention:

- The upper 12 inches (0.3 m) of topsoil would be scalped and temporarily stockpiled to preserve the seed bank;
- Upon completion of construction, the topsoil and salvaged vegetation would be redistributed over the surface of the construction site, thus disseminating the original seed bank over the construction areas; and
- Clearing of vegetation would be confined to the minimal area needed to conduct the construction activities.

<u>Mitigation Measures for Impact TerrBio-3: Temporary or Permanent Vegetation Loss Due to Removal/Habitat Removal</u>

MM TerrBio-3b. Tree Avoidance and Replacement. The Applicant shall, to the extent possible, avoid, minimize, and compensate for impacts on trees by implementing the following:

- Pre-construction identification, fencing, and avoidance of trees to the maximum extent during construction;
- Replanting of tree rows impacted by construction activities on a 1:1 replacement ratio. The type of tree planted would be approved by the CDFG;
- Consultations with local jurisdiction if unavoidable impacts on locally protected trees ("Protected Trees") are likely to occur. Pockets of coastal live oaks potentially occur within the proposed Project ROW in Los Angeles County. Permits would be obtained if any trees would have to be removed for pipeline installation;

- Development and implementation of a Tree Replacement Plan for loss of and/or significant damage to trees; and
- Supervision and verification of the implementation of these measures by the Environmental Monitor.

MM TerrBio-3c. **Riparian Avoidance and Restoration.** The Applicant shall avoid, minimize, and compensate for impacts on riparian habitat during construction due to trenching, open cut crossings of waters of the United States, and HDD pit excavation by:

- Avoiding potential impacts on riparian forest by clearly identifying and marking important areas, boring under waters of the U.S. where feasible, and identifying any proposed riparian habitat removal (and subsequent restoration) locations;
- Consulting with the CDFG for any unavoidable impacts on riparian vegetation, and fencing riparian vegetation adjacent to work areas to prevent impacts;
- Preparing and implementing riparian restoration, including replanting and monitoring elements. This includes supervision and verification of implementation of these measures by an approved Environmental Monitor;
- Before construction, identifying methods to restore the beds and banks of waters of the U.S. to pre-construction conditions, including appropriate replacement ratios (in accordance with issued permit conditions, or, at a minimum, a 3:1 replacement ratio of habitat acreage and a replacement ratio of at least 1:1 for the number of trees and shrubs present before construction); and
- Identifying restoration methods, including native tree and shrub species matching pre-construction conditions, understory native seed mix composition and application methods, planting methodology, description of monitoring efforts to measure replacement success, and success criteria and contingency measures for off-site habitat creation in case mitigation measures are unsuccessful.

With the implementation of these measures, these impacts would be reduced to a less than significant level.

Impact TerrBio-4: Temporary or Permanent Changes to Wetlands or Waters of the United States During Construction

Construction, such as trenching, in wetlands or waters of the United States could remove vegetation, disrupt the hydrology of the wetlands within and adjacent to

the construction area, or alter the habitat for special status plant species (Class II).

The wetland delineation survey identified 26 features along Center Road and the Line 225 Pipeline Loop. Temporary impacts could be caused by interception and detention of groundwater or surface water within the excavated trench, thus reducing the hydrologic input to the adjacent feature. Long-term hydrologic changes to features could result from trench backfill and topographic restoration activities. Backfill material and methods could affect wetland hydrology by altering surface and subsurface flow. For example, the pipeline backfill materials (such as gravel or coarse-texture non-native fill) could be more or less permeable than native materials. Surface alteration could impede or accelerate drainage. Compaction and settlement of backfill could create ditches along the pipeline. Excess backfill may restrict surface water or groundwater connections to those features identified during the survey. Impacts on the hydrologic function of features would be considered potentially significant.

Water crossings would occur at the Santa Clara River, the South Fork Santa Clara River, and San Francisquito Creek. The pipeline would cross Santa Clara River at McBean Parkway and San Francisquito Creek at McBean Parkway by hanging it underneath open girder bridges. The pipeline across the South Fork Santa Clara River at Magic Mountain Parkway would be installed inside a closed girder bridge. Other crossings such as at several concrete-lined flood control channels may be crossed using existing road bridges or HDD. Each crossing would need to be evaluated by SoCalGas construction engineers and alternative crossing methods developed.

To avoid or reduce impacts to aquatic resources, all dry watercourse or minor wet crossings would be open-cut-trenched. The open-cut technique would require a trench to be excavated from bank to bank. Equipment such as backhoes, bulldozers, and draglines would be used to excavate the ditch. The pipe would be placed below the scour depth of the wash channel with an adequate margin of safety to ensure that the pipe is not exposed by wash bed scour. The wash channel would be returned to its original configuration, the substrate would be replaced, and the banks would be stabilized and revegetated as necessary. A USACE Clean Water Act Section 404 Nationwide Permit No. 12 (Utility Line Discharges) and a CDFG Streambed Alteration Agreement (Fish and Game Code Section 1602) would be obtained for watercourse crossings as required. SoCalGas would obtain all permits.

Mitigation Measures for Impact TerrBio-4: Temporary or Permanent Changes to Wetlands or Waters of the United States During Construction

MM TerrBio-4a. Avoid, Minimize, or Reduce Impacts on Wetlands. Impacts on wetlands or waters of the United States that provide habitat for special status plant species shall be avoided, minimized, or reduced by at least the following mitigation measures:

- Identifying and marking any wetland areas, including those identified to support special status species, to be avoided during construction and operation activities;
- Limiting the width of the construction ROW through identified wetlands or waters;
- Limiting the operation of construction equipment within the wetlands or waters to the greatest extent possible;
- Limiting grading activities to directly over the trench area, using low-ground-weight construction equipment, within wetlands;
- Use prefabricated mats in saturated or standing water wetlands; and
- Under consultation and coordination with the USACE, obtaining permits and approval from the USACE to avoid, reduce, or minimize impacts. Further site-specific mitigation measures would be identified and implemented as required by, and in coordination with, regulatory agencies.

With the implementation of these measures, the impact would be reduced to a less than significant level.

Impact TerrBio-5: Permanent Impact Caused by Noxious Weed Invasion

Construction-related disturbance could provide an opportunity and seedbed for the invasion of weeds, which could adversely affect special status plant species or habitats, and upland vegetation (Class III).

Most noxious and invasive species are aggressive pioneer species that have a competitive advantage over other species. All areas disturbed by construction activities are potential habitat for noxious and invasive species. The introduction of new noxious species from other areas can occur from construction equipment and other vehicles transporting seeds. Once noxious and invasive species are established in an area, negative impacts can include one or more of the following, depending on the species, degree of invasion, and control measures:

- Loss of wildlife habitat;
- Alteration of wetland and riparian functions;
- Negative impact on agricultural crops;
- Displacement of native plant species;
- Reduction in plant diversity;
- Changes in plant community functions; and
- Increased soil erosion and sedimentation.

The Applicant has incorporated the following into the Project:

AMM TerrBio-5a. Weed Management. The Applicant would implement the following measures to prevent the spread of invasive weeds:

- A noxious weed survey would be performed to identify known locations of noxious weeds or populations currently being managed by the county noxious weed boards;
- Invasive exotic plants would be removed from the work area; and
- When equipment is mobilized from an area infested with exotic plant species, the tires and undercarriages of all vehicles and construction equipment would be sprayed or washed to prevent the spread of noxious weed species into an unaffected area.

Other elements of the Applicant's Weed Management Program would include procedures to monitor and control the spread of weed populations along the pipeline. The Biological Monitor would implement the program by following procedures outlined in the Weed Management Program:

- Clean all vehicles used in terrestrial construction before operating on and off maintained roads;
- Obtain all fill material, soil amendments, and gravel required for construction/restoration activities from a "weed-free" source;
- Clear existing vegetation from areas scheduled for immediate construction work (within 10 days), and only for the width needed for active construction activities;
- Salvage and replace the upper 12 inches (0.3 m) of topsoil (or less depending on the existing depth of the topsoil) wherever the pipeline is trenched through open land (not including graded roads and road shoulders); and
- Revegetate disturbed soils with an appropriate seed mix that does not contain weeds.

Mitigation Measures for Impact TerrBio-5: Permanent Impact Caused by Noxious Weed Invasion

This impact is considered less than significant, and no further mitigation is identified.

Impact TerrBio-6: Temporary Impacts on Wildlife Habitat Removal

Construction activities could temporarily remove wildlife habitat, thereby reducing its availability to local wildlife populations (Class II).

The USFWS and NOAA Fisheries are the primary agencies responsible for compliance with Federal fish and wildlife laws, including the ESA. The CDFG is responsible for protecting and perpetuating State fish and wildlife resources.

The Applicant would be required to address the proposed Project action in compliance with Section 7(c) of the ESA of 1973, as amended. Section 7 of the ESA ensures that, through consultation with the USFWS and NOAA Fisheries, Federal actions do not jeopardize the continued existence of any threatened, endangered, or proposed species, or result in the destruction or adverse modification of critical habitat.

Direct impacts on ground-dwelling mammals occurring within the pipeline ROW would include fatalities from construction activities such as ROW preparation for pipeline installation, trenching activities, and grading activities. Indirect impacts from these activities that would potentially affect mammals include loss of habitat important for inhabitance, foraging, and reproduction. However, mammals are expected to repopulate impacted areas after construction activities cease and restoration is complete. Some small mammal fatalities can be expected, but overall, impacts are expected to be low and not significant.

Along the Center Road Pipeline route, 6.11 acres (2.5 ha) of tree rows would potentially be disturbed. For the Line 225 Pipeline Loop, 40.34 acres (16.3 ha) of natural plant communities and 14.9 acres (6 ha) of non-native grasslands potentially would be disturbed. During the construction, wildlife would likely be temporarily displaced from the pipeline ROW because of the influx of humans and heavy construction equipment, and associated noise and disturbance. Temporary loss of habitat from Project construction is considered a minor impact because of vegetation reclamation and suitable habitat adjacent to the ROW. Once construction is complete, it is expected that wildlife would again occupy areas within the pipeline ROW. Temporary clearing along the proposed alignments is considered a potentially significant impact that can be reduced to less than significant.

The Applicant has incorporated the following into the Project:

AMM TerrBio-6a. **Minimize Disturbance at Water Crossings.** The Applicant would not perform open-trench crossings at any stream, wetland feature, or other waters of the United States unless otherwise identified by a Streambed Alteration Agreement, USACE 404 Permit, and/or any other required permits.

In accordance with this, the Applicant may use HDD to avoid affecting waters of the United States or wetland crossings.

For HDD in waters of the United States that do not support sensitive wildlife resources within 500 feet (152 m) of the construction site (e.g., at channelized or unvegetated waterways), a qualified Biological Monitor experienced with HDD procedures shall visit the site daily while HDD operations are active, and provide a

report to the CSLC. In locations that support sensitive wildlife resources, a qualified Biological Monitor would be on site at all times during HDD activities.

Construction activities shall not be conducted within 15 feet (4.5 m) of wetlands or at the top of a bank of waters of the United States unless the CDFG has given prior approval. The 15-foot (4.5-m) setback from riparian vegetation may be modified at specific sites after consultation with the appropriate resource agencies.

For crossings of waters of the United States, prerequisites to excavation of the entry pit and exit pit would include the following:

- The entry pit and exit pit would be located far enough from the top of the bank and at a sufficient elevation to avoid inundation of water, and to minimize excessive migration of groundwater into the entry pit or exit pit;
- The proposed excavation for the entry pit and exit pit would be isolated from the surface water via silt fencing to avoid sediment transport; and
- The spoils storage resulting from excavation of the entry pit would be isolated via silt fencing to avoid sediment transport. Immediately upon completion of the bore, the following would be promptly undertaken and completed: proper disposal of excess spoils, backfilling and restoring of the original contour of the entry pit and exit pit, and then revegetation.

Mitigation Measures for Impact TerrBio-6: Temporary Impacts on Wildlife Habitat Removal

MM TerrBio-6b. **Species Surveys.** The Applicant shall conduct focused habitat evaluations and species surveys to determine the potential for the occurrence of special status species or their habitats in the proposed Project area. The surveys would be based on established protocols or developed in consultation with a biologist at the USFWS and the CDFG. Once the surveys are completed and species and their habitats are documented, additional measures shall be developed to further avoid or minimize impacts. Mitigation measures to reduce impacts on wildlife habitat shall include:

- Placing markers around specific habitat to be avoided and establishing a construction exclusion zone;
- Implementing a worker awareness plan; and
- Implementing an HDD Control Plan, including setbacks.

MM WAT-5a. **HDD Contingency Plan** also applies here (see Section 4.18, "Water Quality and Sediments").

MM WAT-5b. **Strategic Location for Drilling Muds and Cuttings Pit** also applies here (see Section 4.18, "Water Quality and Sediments").

Implementation of these measures before and during construction would reduce potentially significant wildlife habitat impacts to less than significant levels.

Impact TerrBio-7: Direct Permanent Impact on Wildlife Mortality

Construction activities associated with pipeline installation, staging areas, HDD locations, and access roads could cause the mortality of small mammals, reptiles, and other less-mobile species. Direct mortality could also be associated with increased human activity, particularly involving wildlife habitat removal and animal/vehicle collisions (Class III).

Wildlife mortality may occur during vegetation and earth removal, grading, trenching, and staging, as well as by vehicle-wildlife accidents. Species most susceptible to direct mortality include ground-nesting birds, slow-moving species, and burrowing species. These activities could crush, smother, hit, or bury wildlife species or their nests/burrows.

Most of the proposed pipeline routes would be constructed along disturbed habitats. Most wildlife in these areas are common, wide-ranging species such as raccoons, opossums, and coyotes. These species are expected to quickly recolonize the ROW after restoration activities are completed. The Applicant shall impose the conditions defined below on all construction personnel. These requirements shall be addressed in the EEAP. Construction crews shall be educated regarding sensitive wildlife that could be encountered and how to safely avoid them. The Biological Monitor shall monitor crew behavior to ensure that the requirements identified in the EEAP are implemented.

The Applicant has incorporated the following into the proposed Project:

AMM TerrBio-7a. **Traffic Control.** The Applicant shall implement the following traffic management efforts:

- All Project-related vehicle and equipment traffic would be restricted to established roads or access routes;
- A 20-mile- (32-km-) per-hour speed limit would be enforced within the work areas, except on county roads and highways; and
- Before pipeline construction activities begin, the vehicle and equipment access routes and work area would be identified.

AMM TerrBio-7b. **Work Area Enforcement.** The Applicant would implement the following:

- No pets or firearms would be permitted on the Project site;
- Pipeline workers would be informed regarding the importance of maintaining designated protected areas; and
- In habitats that potentially support listed species or sensitive habitat, orange construction fencing would be installed to delineate the work area in order to prevent equipment from entering adjacent habitat areas.

AMM TerrBio-7c. Trash Removal. The Applicant would implement the following:

- All trash would be properly contained, removed from the work site, and disposed of regularly; and
- All construction debris and trash would be properly disposed of, and food-related trash shall be removed from the site when work activities are complete at the end of each day.

Mitigation Measures for Impact TerrBio-7: Direct Permanent Impact on Wildlife Mortality

With the implementation of these measures, the impact would be less than significant, and no mitigation measures are identified.

Impact TerrBio-8: Temporary Wildlife Disturbance from Increased Human Presence

Human disturbance during Project construction, operations, and maintenance could temporarily displace wildlife, cause them to avoid preferred habitat areas, or reduce their reproductive success (Class III).

Noise, dust, and equipment movement during construction would likely cause birds, particularly in coastal and riparian areas, and larger mammals known to occur in the general Project area to leave the area and move to the closest adjacent habitat areas. However, the adjacent habitat areas may not be able to support additional individuals. Therefore, the local wildlife population would temporarily decline during the construction phase of the Project, but should return to pre-construction levels after habitat restoration. The Project ROW and adjacent habitats are not likely to be completely abandoned by wildlife, but the effective use of these areas could be reduced during construction, depending on the wildlife species, time of year, topography, and amount of vegetation present. Because this effect could be detrimental to some wildlife during their critical life stages, and could increase competitive pressures among adjacent populations and habitats, the impact could be significant.

Construction across water features could interfere with wildlife movement through streamside riparian areas. Because HDD would occur throughout the day and night, nocturnal and diurnal species in the coastal zone would be susceptible to adverse effects. Along the pipeline corridor, diurnal species would be most susceptible to adverse effects from the pipeline construction. Because most of the proposed pipeline

routes would be constructed in disturbed habitats, most of the impacted wildlife are likely to be common, wide-ranging species.

Wildlife are most vulnerable to construction-related disturbances during their breeding seasons. Disturbances from construction could result in nest, roost, or territory abandonment and subsequent reproductive failure, if these disturbances were to occur during an affected species' breeding season. These impacts could affect special status species, songbirds, small mammals, amphibians, and reptiles. Disturbance from increased human presence is considered potentially significant, but mitigable to less than significant levels.

Potential impacts on wildlife during operations include general disturbance during inspections of the pipeline ROW, and maintenance and repair of valves. The noise and occasional increased human activity associated with the normal operation of the pipeline facilities could disrupt wildlife present in adjacent habitats. The pipelines would be in areas that regularly experience human-generated noise.

Impacts on wildlife from construction could range from short-term, less than significant impacts (if no sensitive wildlife resources are present) to potentially significant impacts (if sensitive wildlife resources are present). However, the impacts on common wildlife species could be minimized through the implementation of mitigation measures.

Pipeline repairs would have impacts similar to construction impacts, but they would be more localized. Because the location and timing of a major repair are impossible to predict, impacts on wildlife from such a repair would be similar to construction impacts and would range from short-term, less than significant impacts (if no sensitive wildlife resources are present) to potentially significant impacts (if sensitive wildlife resources are present). Significant effects of construction and repair operations could be avoided by implementation of the mitigation measures described below.

Impacts on special status fish species addressed below were identified as potentially occurring within the proposed Project area. Of these 42 species, only 15 have potential to be adversely impacted by the proposed pipeline Project. These 15 species either are known to occur or have a high probability of occurring within or near the Project area. Protection recommendations for each of the 15 potentially affected special status species are presented below. In addition to the 15 special status species potentially affected by the proposed Project, special status raptors, protected under the MBTA, would also be impacted if active raptor nests were to be destroyed or disturbed by Project-related actions.

Mitigation for impacts on raptor species is also presented below (MM TerrBio-9c). The mitigation measures would ensure that appropriate consultation with resource agencies would occur.

The Applicant has incorporated the following into the proposed Project (see Impact TerrBio-2, above):

AMM TerrBio-2a. Pre-Construction Surveys.

AMM TerrBio-2b. Biological Resources Mitigation and Monitoring Plan (BRMIMP).

AMM TerrBio-2c. Employee Environmental Awareness Program (EEAP).

AMM TerrBio-2d. Biological Monitoring.

AMM TerrBio-2e. Confine Activity to Identified Right-of-Way (ROW).

Mitigation Measures for Impact TerrBio-8: Temporary Wildlife Disturbance from Increased Human Presence

MM TerrBio-9c. Protect Specified Bird Species also applies here (see impact TerrBio-9, below).

With the implementation of these measures, disturbance of wildlife in the vicinity of the proposed Project would be reduced to less than significant levels.

Impact TerrBio-9: Temporary or Permanent Construction Impacts on Sensitive Species and/or Habitats

Construction impacts could harass species, which could result in a take of an endangered species, causing a permanent impact (Class II).

Harassment could include temporary disturbance to habitat caused by noise and light generated during construction. This type of disturbance may cause listed bird species to abandon nests or alter feeding habits. Other impacts would include releases of drilling muds within habitat that supports listed species, which could result in direct mortality of a listed species. HDD releases of drilling muds within flowing surface water features would increase turbidity and sedimentation, impacting aquatic species such as the unarmored threespine stickleback.

Preliminary consultation with the USFWS identified concerns regarding potential impacts on arroyo toad, stickleback, Least bell's vireo, two species of spine flower (slender horn and San Fernando), salt marsh bird's beak, least terns, snowy plovers, clapper rails, brown pelican, and sensitive breeding seabird species. These special status species potentially occur within the Project area in coastal areas, along the proposed Line 225 Pipeline Loop route. In addition, critical habitat may exist for the California coastal gnatcatcher within coastal sage habitat. The HDD and other construction activities could impact these species, and timing of activities should be outside the breeding season (typically March 1 through October 1). Other concerns, such as light and noise, are not generally a problem for birds outside their breeding season.

Mitigation Measures for Impact TerrBio-9: Temporary or Permanent Construction Impacts on Sensitive Species and/or Habitats

Mitigation measures to minimize impacts would include pre-construction surveys for the arroyo toad and listed plants. Construction Monitors with authority to handle and move species out of the construction area shall be required. Mitigation measures for the Least bell's vireo would be to avoid the nesting season. Mitigation measures for the unarmored threespine stickleback would be to mobilize Construction Monitors and fish handlers to ensure that fish are not within the riverbed at the pipeline crossing, with additional measures to move or block fish from the construction area. HDD crossing would be the preferred construction method to avoid or minimize impacts.

Preliminary discussions with the CDFG have identified salt marsh bird's beak, tidewater gobies, snowy plovers, terns, Virginia rails, Sora, grebes, herons, egrets, common yellowthroat, wintering waterfowl, and wintering burrowing owls as species of concern to the agency. If construction were to occur during winter, mitigation measures to reduce impacts on wintering birds would be to complete a wintering bird survey within the agricultural areas. If wintering birds were documented, the Applicant would consult with the CDFG to develop mitigation measures specific to those birds identified, such as burrowing owls. To minimize impacts on pickleweed habitat, HDD bore pits should not be located within wetlands. Impacts on pickleweed habitat would require a 3:1 replacement ratio, plus additional surface restoration, which may include noxious weed control. Another CDFG concern is the population of unarmored threespine stickleback within the Santa Clara River. The CDFG stated that no "take permit" would be issued for the stickleback. The preferred crossing method would be the use of the existing pipeline bridge.

MM TerrBio-9a. **Establish Buffer Zones.** The specific buffer zone distance shall be determined by the appropriate resource agencies (the CDFG and the USFWS). The Applicant's Biological Monitors shall:

- Locate and stake identified sensitive resources before construction activities begin in specified segments; and
- Inspect all areas with sensitive resources before construction to ensure that barrier fencing, stakes, and required setback buffers are maintained.

MM TerrBio-9b. **Protect Special Status Wildlife.** Where construction occurs within or near known or potential special status species habitat, the Applicant shall perform the actions defined in the following paragraphs.

MM TerrBio-9c. **Protect Specified Bird Species.** Where construction is proposed to occur near riparian or marsh habitats that support special status bird species, the Applicant shall limit construction periods to times outside the respective breeding season of the affected species through the following:

- The Applicant shall avoid disturbance of active raptor nests (osprey, Cooper's hawk, ferruginous hawk, and American peregrine falcon) at all locations. Pre-construction surveys shall be performed in all areas to identify potential raptor nesting sites within or near the ROW. No pre-construction surveys shall be required if construction activities occur only during the non-breeding season (September 1 through January 31). However, if construction activities are scheduled to occur during the breeding season (February 1 through August 31), pre-construction surveys of all potentially active nest sites within 500 feet (152 m) of the construction corridor shall be conducted in areas that may have nesting raptors, including ground-nesting raptor species such as northern harrier and short-eared owl. If surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further mitigation shall be required. If active nests are found, a 500-foot (152-m) no-disturbance buffer shall be established around the active nest(s). Evaluations and buffer adjustments shall be conducted in consultation with the local CDFG representative. The construction area within the designated buffer shall be identified in the field by staking and flagging;
- If construction activities were to occur within agricultural fields of the Oxnard Plain during winter, surveys would have to be completed to identify over-wintering birds that may occur along the pipeline routes. Burrowing owls would be of particular concern because they over-winter in agricultural fields near the Reliant Energy Ormond Beach Generating Station (California Department of Fish and Game 2004); and
- If avoidance of sensitive wildlife species habitat is not feasible (e.g., by modifying the route or boring), the Applicant shall develop appropriate mitigation in consultation with the resource agencies (the CDFG and the USFWS). No construction activity shall be permitted until the applicable resource agencies determine that the proposed mitigation (in the Biological Opinion) would result in less than significant impacts on the affected species.

After the implementation of these mitigation measures, impacts on sensitive species would be less than significant.

4.8.5 Alternatives

4.8.5.1 No-Action Alternative

The no-action alternative means that the Project would not go forward, and the FSRU and associated pipelines would not be installed. The no-action alternative would result in no environmental impacts or benefits associated with the proposed Project. Site conditions would remain as described in Subsection 4.8.1, "Environmental Setting."

4.8.5.2 Alternative DWP – Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline

Environmental Setting

Habitat within the Reliant Energy Mandalay Generating Station area supports a foredune plant community from near high tide to approximately 500 feet (152 m) inland. McGrath Lake is located on the adjacent State Park property and supports a wide range of coastal bird species. The inland area contains willow and dune scrub habitat, and McGrath Lake supports freshwater and brackish wetlands. Several bird species have been observed using the area, including snowy plovers, least terns, snowy egrets, cattle egrets, killdeers, mallards, lesser scaup, ruddy ducks, American coots, canvasbacks, brown pelicans, red-wing black birds, California towhee, house finch, swallows, ring-billed and western gulls, and kestrels. The park also has exclusion areas to protect nesting snowy plovers. Sensitive plant species have also been documented in the area.

Impact Analysis and Mitigation

Impacts on species using the area would occur during the HDD procedures to install the pipeline beneath the beach. These impacts would include possible releases of drilling muds, noise, and light generated by the construction equipment, and disturbance by construction personnel.

Impacts on habitat would not be considered significant because HDD would be used to install the pipeline. No cutting, clearing, and/or removal of vegetation would be necessary for the HDD procedures. The proposed metering station location could be expanded within the Reliant Energy Mandalay Generating Station, which is disturbed. The measures identified in Section 4.18, "Water Quality and Sediments," would mitigate impacts caused by potential releases of drilling muds.

Timing of construction activities outside the nesting season would avoid impacts on nesting birds using the beach and McGrath Lake. Impacts caused by the noise and lights from the construction equipment would not be considered significant because species using the area have become acclimated to the noise and light generated by the operation of the Reliant Energy Mandalay Generating Station.

4.8.5.3 Alternative Onshore Pipeline Routes

Center Road Pipeline Alternative 1

As discussed in Subsection 4.8.1, several sensitive species, and potential waters of the United States, occur in the vicinity of the ROW. Most of the species occur within the vicinity of the Ormond Beach shore crossing. The remaining route traverses mainly agricultural lands with limited industrial, commercial, and rural residential occurrences. Habitat within the industrial, commercial, and rural residential areas would not support any of the sensitive species discussed in Subsection 4.8.1, but may support those common species that are accustomed to a high level of disturbance. The agricultural land would also provide habitat for those common species, as well as wintering waterfowl, wintering burrowing owls, and those species using the tree rows for nesting and roosting.

Impact Analysis and Mitigation

Impacts on species using the ROW or in the vicinity would be short-term during construction activities. Construction and operation could directly impact species through disturbance, displacement, and possibly mortality. Cutting, clearing, and/or removing existing vegetation within the pipeline ROW would not be considered a significant impact because the pipeline would be installed within a roadway, road shoulder, or agricultural field. If tree rows were removed during construction, replanting would mitigate short-term impacts on species using the tree rows as nesting and roosting habitat.

Center Road Pipeline Alternative 2

This alternative has habitat similar to that described under Center Road Pipeline Alternative 1. However, this route traverses a higher density of commercial, industrial, and residential development.

Impacts would be similar to those described for Center Road Pipeline Alternative 1. The impacts would be short-term and would not be considered significant on the species using the area or their habitat.

Line 225 Pipeline Loop Alternative 1

Line 225 Pipeline Loop Alternative 1 traverses areas with potential habitat for several special status species, special status plant communities, and waters of the United States. The river crossings support southern cottonwood-willow riparian habitat, and the entire route lies within the California Orcutt grass (*Orcuttia californica*) habitat. The area from the Quigley Valve Station to approximately MP 1.9 has sage scrub habitat with pockets of mulefat scrub, and non-native grassland habitat. In addition to the habitat occurring near the Quigley Valve Station, the northern part of the route north of the Santa Clara River crosses pockets of valley oak woodlands. The main section of the route traverses commercial, residential, and industrial development.

The pipeline route would cross the only recognized habitat for the unarmored threespine stickleback populations in sections of the Santa Clara River and a short reach of San Francisquito Canyon. Other sensitive species documented in the vicinity of the route include the State endangered San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandina*); the southwestern arroyo toad (*Bufo californicus*), a Federal endangered/State species of concern; the Federal/State endangered least bells vireo (*Vireo bellii*); and the State species of concern Western spadefoot toad (*Scaphiopus hammondii*).

The impacts on sensitive species and their habitat from the construction and operation of the pipeline would vary depending on the requirements of each species and the habitat present. Construction and operation would directly impact species through disturbance, displacement, and possibly mortality.

The construction ROW width may vary depending on the surrounding land use (see Section 4.13, “Land Use,” for land requirements). Currently, an 80-foot (24-m) ROW would be used on the route, except at the river crossings, where the ROW may require a maximum of 225 feet (69 m). Open and closed girder bridges would be used for major wet crossings.

Cutting, clearing, and/or removing existing vegetation within the pipeline ROW would cause initial impacts on species and their habitat. Impacts on the sage scrub, the riparian habitat at the river crossings, and the oak woodlands would be long term. In addition, clearing the ROW would result in the displacement of wildlife species from areas on or adjacent to the ROW. These impacts would not be considered significant if the ROW were to be restored to pre-construction conditions.

CDFG is not issuing "take permits" for the stickleback population within the Santa Clara River. USFWS and CDFG may be amenable to an HDD crossing, although there would be concerns regarding releases of drilling muds within the river. The trenching method to install the pipe across the Santa Clara River would not be acceptable. Therefore, the Applicant’s preferred option to install the pipeline across the river include is by open girder bridge.

In addition to the mitigation measures identified in Subsection 4.8.4, USFWS would require mitigation measures that would include spring surveys for the spine flower, pre-construction surveys for the arroyo toad, and Construction Monitors with authority to handle and move the species out of the construction area if they are encountered. Mitigation measures to protect the least bells vireo would be to avoid the nesting season (April 1 to August 15). Measures for the stickleback would include Construction monitors and fish handlers to remove fish within the construction area and/or deter fish from the area by diverting water or installing blocking nets.

4.8.5.4 Alternative Shore Crossings and Pipeline Connection Routes

Arnold Road Shore Crossing/Arnold Road Pipeline

Habitat along the proposed Arnold Road Shore Crossing/Arnold Road Pipeline route include agricultural fields, freshwater/brackish wetlands, beaches and dunes, and non-tidal salt marshes. The subsection "Point Mugu Shore Crossing/Casper Road Pipeline" below provides a description of the habitats and species that may occur within the shore crossing and pipeline ROW.

The HDD staging area and proposed metering station would occur within an agricultural field that would not impact any freshwater/brackish wetlands, beaches and dunes, or non-tidal salt marshes.

Impacts on species and their habitat may occur during the HDD procedures to install the pipeline. These impacts could include releases of drilling muds, noise and light generated by the construction equipment, and disturbance from construction personnel.

Impacts on the freshwater/brackish wetlands, beaches and dunes, and non-tidal salt marshes would not be considered significant if HDD were employed to install the pipeline across the beach because no cutting, clearing, and/or removal of vegetation would be necessary. The proposed metering station would be located within an agricultural field at the end of Arnold Road, which would avoid impacts on freshwater/brackish wetlands, beaches and dunes, and non-tidal salt marshes. Timing of construction activities outside the nesting season would avoid impacts on nesting birds.

Noise and light generated by the HDD construction procedures could cause a short-term impact on species. The effects could be avoided or reduced if construction activities were conducted outside the nesting season, if Biological Monitors were on site to determine whether the HDD procedures were affecting species' behaviors, and if the mitigation measures identified were implemented to minimize temporary impacts.

Point Mugu Shore Crossing/Casper Road Pipeline

The Naval Base Ventura County (NBVC) Point Mugu supports a variety of habitat types, such as intertidal mudflats and sandflats, intertidal salt marsh, tidal creeks, salt pannes, beach and dunes, drainage ditches, and developed areas. Specific habitat at the shore crossing includes beaches and dunes, non-tidal salt marsh, salt pannes, developed areas, freshwater/brackish wetlands, and agricultural fields.

NBVC Point Mugu beach and dune habitat provides support to western snowy plover (*Charadrius alexandrinus nivosus*), California least terns (*Sterna antillarum browni*), and globose dune beetle (*Coelus globose*). The NBVC Point Mugu has classified the habitat as characteristic of the native dunegrass and san verbena (*Abronia maritime*) beach bursage series, according to Sawyer and Keeler-Wolf (1995). Native plants include dune primrose (*Camissonia cheiranthifolia*), sand verbena, beach bursage (*Amdrosia chamissonis*), and beach morning glory (*Calystegia soldanella*). Non-native

species include sea rocket (*Cakile maritime*), saltbushes (*Atriplex* spp.), and ice plant (*Mesembryanthemum* spp.). The dominant plant species within the non-tidal salt marshes include pickeweed (*Salicornia virginica*) and saltgrass (*Distichlis spicata*).

The salt pannes are within the upper intertidal areas, and have vegetation occurring around the perimeter of the shallow basin. The salt pannes at the NBVC Point Mugu normally accumulate water during the winter rainfall, or at high spring tides. Fresh water from an adjacent duck club provides an additional source of water to the salt pannes. The water slowly evaporates within the pannes, and will become salt crusted in the summer. Several birds, such as waterfowl and shorebirds, use the salt pannes for feeding, resting, and nesting. Sensitive species, such as snowy plovers, use the salt pannes during nesting season, and the salt marsh bird's-beak is present within the non-tidal salt marshes.

The developed habitat at the proposed shore crossing includes a circular concrete pad and outbuildings not currently in use by the NBVC Point Mugu. The concrete pad could be used as a staging area for the HDD, which would reduce impacts on surrounding habitat.

The freshwater/brackish wetlands occur within a privately owned duck club north of the NBVC Point Mugu property. The duck club has constructed ponds that are flooded with fresh water to attract waterfowl. The individual ponds are bermed to contain the water, and have either vehicle access roads or footpaths along the berms. The dominant freshwater plant species would include cattails (*Typha domingensis*), bulrushes (*Scirpus californicus*), and various *Juncus* and *Carex* species. Sensitive species within the duck club include populations of salt marsh bird’s-beak.

The proposed metering station would be located within an agricultural field currently producing turf-grass; no native vegetation is present. Wildlife using the area would be those common species discussed in Subsection 4.8.1.

The pipeline route is surrounded by agricultural fields producing a variety of crops. Wildlife using the area would be those common species discussed in Subsection 4.8.1.

Impacts on species and their habitat would be similar to those from the Arnold Road Shore Crossing because the Point Mugu Shore Crossing essentially would cross the same area. However, the proposed metering station would be located in an agricultural field at the southern end of Casper Road. In addition, the total length of the HDD would be longer than the Arnold Road Shore Crossing, which could impact more freshwater/brackish wetlands, beaches and dunes, and non-tidal salt marshes if a release of drilling muds were to occur.

Because HDD would be used to install the pipeline across the beach, no cutting, clearing, and/or removal of vegetation would be necessary, and impacts on the freshwater/brackish wetlands, beaches and dunes, and non-tidal salt marshes would not be considered significant. The proposed metering station would be located within an agricultural field, which would avoid impacts on freshwater/brackish wetlands,

beaches and dunes, and non-tidal salt marshes. Timing of construction activities outside the nesting season would avoid impacts on nesting birds.

Noise and light generated by the HDD construction procedures would cause a short-term impact on species. The effects could be avoided or reduced if construction activities were conducted outside the nesting season, and if Biological Monitors were to observe species using the area during construction to determine whether the HDD procedures were affecting the species' behaviors. If species were impacted by the HDD procedures, the implementation of mitigation measures identified would minimize temporary impacts.

4.8.6 References

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Table 4.8-1 Vegetation Communities on the Proposed Center Road Pipeline Routes

MP	MP	Preferred Route	Proposed Route - Aquatic	Alternative 1	Alternative 1 - Aquatic	Alternative 2	Alternative 2 - Aquatic	Arnold Road Alternative	Arnold Road - Aquatic	Point Mugu Alternative	Point Mugu - Aquatic
0	1	Southern Foredune, Developed Land, Agricultural Land	1 ag/fc crossing	Southern Foredune, Developed Land, Agricultural Land	1 ag/fc crossing	Southern Foredune, Developed Land, Agricultural Land	1 ag/fc crossing	Southern Foredune, Developed Land, Agricultural Land	1 ag/fc crossing	Southern Foredune Developed Land Agricultural Land	1 ag/fc crossing
1	2	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land	Parallels ag/fc	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	Parallels ag/fc	Agricultural Land, Developed Land, Tree Row	Parallels ag/fc
2	3	Agricultural Land, Developed Land	None	Developed Land, Tree Row	None	Agricultural Land, Developed Land	None	Agricultural Land, Developed Land	None	Agricultural Land, Developed Land	None
3	4	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None
4	5	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None
5	6	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Non-Native Grassland, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land, Tree Row	None
6	7	Agricultural Land	Parallels ag/fc	Non-Native Grassland	None	Agricultural Land	Parallels ag/fc	Agricultural Land	Parallels ag/fc	Agricultural Land	Parallels ag/fc
7	8	Developed Land, Agricultural Land	Parallels ag/fc	Developed Land, Non-Native Grassland	None	Agricultural Land, Developed Land	Parallels ag/fc	Developed Land, Agricultural Land	Parallels ag/fc	Developed Land, Agricultural Land	Parallels ag/fc

Table 4.8-1 Vegetation Communities on the Proposed Center Road Pipeline Routes

MP	MP	Preferred Route	Proposed Route - Aquatic	Alternative 1	Alternative 1 - Aquatic	Alternative 2	Alternative 2 - Aquatic	Arnold Road Alternative	Arnold Road - Aquatic	Point Mugu Alternative	Point Mugu - Aquatic
8	9	Developed Land, Agricultural Land	None	Developed Land, Non-Native Grassland, Agricultural Land	None	Agricultural Land, Developed Land	None	Developed Land, Agricultural Land	None	Developed Land, Agricultural Land	None
9	10	Agricultural Land, Developed Land	Nyeland Drain	Developed Land, Agricultural Land, Tree Row	None	Agricultural Land, Developed Land	Nyeland Drain	Agricultural Land, Developed Land	Nyeland Drain	Agricultural Land, Developed Land	Nyeland Drain
10	11	Agricultural Land, Developed Land	Parallels ag/fc, and crosses two ag/fc	Agricultural Land, Developed Land, Tree Row	None	Agricultural Land, Developed Land	Parallels ag/fc, and crosses two ag/fc	Agricultural Land, Developed Land	Parallels ag/fc, and crosses two ag/fc	Agricultural Land, Developed Land	Parallels ag/fc, and crosses two ag/fc
11	12	Agricultural Land, Developed Land	Parallels 2 ag/fc	Agricultural Land, Non-Native Grassland, Developed Land, Tree Row	None	Agricultural Land, Developed Land	Parallels 2 ag/fc	Agricultural Land, Developed Land	Parallels 2 ag/fc	Agricultural Land, Developed Land	Parallels 2 ag/fc
12	13	Agricultural Land, Exotic Mixed Riparian Forest	Parallels 2 ag/fc	Agricultural Land, Developed Land	2 ag/fc crossing	Agricultural Land, Exotic Mixed Riparian Forest	Parallels 2 ag/fc	Agricultural Land, Exotic Mixed Riparian Forest	Parallels 2 ag/fc	Agricultural Land, Exotic Mixed Riparian Forest	Parallels 2 ag/fc
13	14	Agricultural Land, Exotic Mixed Riparian Forest	Parallels ag/fc and 1 ag/fc crossing	Agricultural Land, Exotic Mixed Riparian Forest	Parallels ag/fc and 1 ag/fc crossing	Agricultural Land, Exotic Mixed Riparian Forest	Parallels ag/fc and 1 ag/fc crossing	Agricultural Land, Exotic Mixed Riparian Forest	Parallels ag/fc and 1 ag/fc crossing	Agricultural Land, Exotic Mixed Riparian Forest	Parallels ag/fc and 1 ag/fc crossing
14	End	Agricultural Land	None	Agricultural Land	1 ag/fc crossing	Agricultural Land	None	Agricultural Land	None	Agricultural Land	None

Codes:

ag = Agricultural drain.

fc = Flood control channel.

1

Table 4.8-2A Special Status Plant Species Potentially Occurring in the Proposed Project Vicinity in the Oxnard Plain and Coastal Zone

Scientific Name Common Name	Listing Status	Growth Form	Flowering Period	General Habitat Characteristics	Potential to Occur in Project Area
Astragalus pycnostachyus var. *lanosissimus* Ventura marsh milk-vetch	FE, CE, CNPS 1B	perennial herb	June-October	Coastal salt marsh. Within reach of high tide or protected by barrier beaches, more rarely near seeps on sandy bluffs. 1-35 m.	Has the potential to occur in coastal salt marsh in the Project vicinity. The only known occurrence of this species is near Oxnard and the Mandalay Beach area.
Chaenactis glabriuscula var. *Orcuttiana* Orcutt's pincushion	1B	annual herb	January-August	Coastal bluff scrub and coastal dunes.	Has the potential to occur in the coastal dune areas in the Project vicinity.
Cordylanthus maritimus ssp. *maritimus* salt marsh bird's-beak	FE, CE, CNPS 1B	annual herb, hemipara-sitic	May-October	Coastal salt marsh, coastal dunes. Limited to the higher zones of the salt marsh habitat. 0-30 m.	Has the potential to occur in coastal salt marsh and dune habitats in the Project vicinity. There are known occurrences of this species near the CRSP Route at MP 0.0, and Point Mugu Naval Air Station.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	CNPS 1B	annual herb	February-June	Coastal salt marshes and swamps, playas, valley and foothill grassland, vernal pools. Usually on alkaline soils in playas, sinks and grasslands. 1-1,400 m.	Has the potential to occur within coastal salt marsh habitat in the Project vicinity. There is a known occurrence of this species near MP 0.0 of the Project Route.

Codes:

FC = Federal candidate species for listing.
FT = Federally listed as threatened.
FE = Federally listed as endangered.
CR = Listed by California as Rare.
CE = Listed by California as endangered.
CNPS = California Native Plant Society.

1A = Presumed extinct in California.
1B = Rare, threatened, or endangered in California and elsewhere.
2 = Rare in California but more common elsewhere.

Sources and Status codes derived from the CNDDB (California Department of Fish and Game 2004).

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Table 4.8-2B Special Status Wildlife Species Potentially Occurring in the Proposed Project Vicinity in the Oxnard Plain and Coastal Zone

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Insects			
Coelus globosus Globose dune beetle	CSC	Inhabitant of coastal sand. Inhabits foredunes and sand dune habitat.	Potential to occur within the Ormond Beach, Mandalay Beach, and Point Mugu Naval Air Station areas.
Cincindela hirticollis gravida sandy beach tiger beetle	FSC	Adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Clean, dry, light-colored sand in the upper intertidal zone. Subterranean larvae prefer moist sand not affected by wave action.	Not likely to occur due to lack of appropriate habitat within the Project area. Reported from depressions in the dunes at Point Mugu Naval Air Station.
Danaus plexippus Monarch butterfly	---	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected groves of eucalyptus, Monterey pine, and cypress. Nectar and water sources nearby.	Potential to occur in eucalyptus groves throughout the Project area. Appropriate winter roost sites exist within groves of eucalyptus, throughout the Oxnard Plains area. Reported from Point Mugu State Park and the “Blue Gum Grove” site just east of Pleasant Valley Road in the Project vicinity.
Panoquina errans Wandering saltmarsh skipper	CSC	Inhabits coastal lagoons and salt marshes.	Potential to occur in the vicinity of the Point Mugu Naval Air Station.
Mollusks			
Tyronia imitator California brackishwater snail	CSC	Inhabits coastal lagoons, found only in permanent estuaries and salt marshes, and submerged areas with a wide range of salinities.	Potential to occur within the Ormond Beach, Mandalay Beach, and Point Mugu Naval Air Station areas.

Table 4.8-2B Special Status Wildlife Species Potentially Occurring in the Proposed Project Vicinity in the Oxnard Plain and Coastal Zone

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Fish			
Eucyclogobius newberryi Tidewater goby	FE, CSC	Brackish water habitats along the California coast, in shallow lagoons and lower stream reaches. Need fairly still but not stagnant water and high oxygen levels.	Reported from Calleguas Creek, the Santa Clara River estuary, the Oxnard Drain, and the "J" Street Canal at Ormond Beach in the Project vicinity. Potential to occur in drainage at Ormond Beach Generating Station (MP 0.2).
Gila orcutti Arroyo chub	CSC	Slow water stream sections with mud or sand bottoms. Feed heavily on aquatic vegetation and associated invertebrates.	Low potential to occur within the Project area.
Onchorncus mykiss irideus steelhead	FE, Southern California ESU	Freshwater species	
Gasterosteus aculeatus williamsoni Unarmored threespine stickleback	FE, CE	Freshwater species	
Reptiles			
Clemmys marmorata pallida Southwestern pond turtle	FSC, CSC	Permanent or nearly permanent bodies of water in many habitat types; below 6,000 feet (1,800 m) elevation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks.	Potential for occurrence within perennial waterbodies within the Project area. Species is present at Point Mugu Naval Air Station.
Phrynosoma coronatum blainvillei San Diego Coast horned lizard	CSC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions. Prefers rocky or shallow sandy soils.	Potential for occurrence within the Project area. Has been observed near the Santa Clara River.

Table 4.8-2B Special Status Wildlife Species Potentially Occurring in the Proposed Project Vicinity in the Oxnard Plain and Coastal Zone

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Birds			
Accipiter cooperi Cooper's hawk	CSC	A breeding resident throughout most of the wooded part of the state in dense stands of live oak, riparian deciduous, or other forest habitats near water. Ranges from sea level to above 9,000 feet (2,700 m)	Potential for nesting and foraging within woodland habitat within the Project area and tree rows throughout the Center Road Pipeline Route. Species occurs at Point Mugu Naval Air Station.
Agelaius tricolor Tricolored blackbird	CSC	Marshes, wetlands, and open fields.	Potential for occurrence during the winter months. Species occurs at Point Mugu Naval Air Station.
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	FSC, CSC	Coastal sage scrub.	Potential to occur within the Project area.
Athene cunicularia hypugaea Western burrowing owl	FSC, CSC	Open, dry, annual, or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. Subterranean nester dependent upon burrowing mammals to provide nesting burrows.	Potential for nesting and foraging within agricultural lands and non-native grassland in the Oxnard Plain. Reported from south of McGrath State Beach campgrounds, in the Project vicinity. Occasionally observed at Point Mugu Naval Air Station during winter.
Buteo regalis Ferruginous hawk	FSC, CSC	Grasslands and agricultural fields.	Potential to occur within the Project area. Has been observed at Mugu Lagoon.
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FC, CE	Nesting along river systems with riparian vegetation.	Potential to occur within the Project area. Has been documented at the mouth of the Santa Clara River.

Table 4.8-2B Special Status Wildlife Species Potentially Occurring in the Proposed Project Vicinity in the Oxnard Plain and Coastal Zone

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Chlidonias niger Black tern	FSC, CSC	Winters off the coast of northwestern South America. Spring migration takes place in April and May, and fall migration extends from late June through September, but stragglers have been reported in all months in California. Mostly breeds on wetlands of the northeastern plateau. Can be common on bays, salt ponds, river mouths, and pelagic waters in spring and fall migration.	Unlikely to occur, although black terns may potentially migrate through the Oxnard plain during spring and fall. Suitable habitat for this species does not exist within the Project area. Species has been observed at Point Mugu Naval Air Station.
Charadrius alexandrinus nivosus Western snowy plover	FT, CSC	Sandy beaches, salt pond levees, and shores of large alkali lakes. Winters and breeds along beaches of the eastern Pacific to British Columbia. Needs sandy, gravelly, or friable soils for nesting.	Reported as nesting in a dune-backed beach in Project vicinity. Suitable habitat for this species exists within the Project area. Nesting occurs at NBCV Point Mugu, Mandalay Beach, and Ormond Beach.
Dendroica petechia brewsteri Yellow warbler	CSC	Riparian and woodland habitat.	Potential for occurrences at the mouth of the Santa Clara River.
Falco peregrinus anatum American peregrine falcon	FD, FSC, CE, CFP	Nests near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds, and human-made structures. Migrants occur along the coast, and in the western Sierra Nevada in spring and fall.	Potential for occurrence as migrants during the fall and spring within the Project area. Occurrences at NBVC Point Mugu
Falco mexicanus Prairie falcon	CSC	Grasslands, agricultural fields, scrub habitat, cliff faces.	Potential for occurrence as migrants during the winter within the Project area.

Table 4.8-2B Special Status Wildlife Species Potentially Occurring in the Proposed Project Vicinity in the Oxnard Plain and Coastal Zone

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Icteria virens Yellow-breasted chat	CSC	An uncommon summer resident and migrant in coastal California and in foothills of the Sierra Nevada. Found up to 4,800 feet (1,460 m) in valley foothill riparian, and up to 6,500 feet (1,980 m) east of the Sierra Nevada in desert riparian habitats. In southern California, breeds locally on the coast and very locally inland in riparian woodlands.	Potential for nesting and foraging within riparian habitat in the Project area.
Larus californicus California gull	CSC	Colonial nester on islets in large interior lakes, either fresh or strongly alkaline. Preferred habitats along the coast are sandy beaches, mudflats, rocky intertidal, and pelagic areas of marine and estuarine habitats, as well as fresh and saline emergent wetlands.	There is the potential for gulls to migrate through the Project site in the Oxnard plain. Occurrences at NBVC Point Mugu.
Laterallus jamaicensis coturniculus California black rail	FSC, CT, CFP	Mainly inhabits salt-marshes bordering larger bays. Occurs in tidal salt marsh with heavily grown pickleweed; also in freshwater and brackish marshes, all at low elevation.	Suitable habitat for this species exists within Point Mugu Naval Air Station.
Numenius americanus Long-billed curlew	FSC, CSC	Uncommon to common breeder from April to September in wet meadow habitat in northeastern California. Uncommon to locally common as a winter visitor from July to April along the coast and in the Central and Imperial valleys.	Uncommon but has the potential to occur as a winter visitor within irrigated agricultural fields within the Project area in the Oxnard Plain. Occurrences at NBVC Point Mugu.

Table 4.8-2B Special Status Wildlife Species Potentially Occurring in the Proposed Project Vicinity in the Oxnard Plain and Coastal Zone

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Polioptila californica Coastal California gnatcatcher	FT, CSC	Local, uncommon, obligate resident of arid coastal scrub below 1,500 feet (457 m) from eastern Orange and southwestern Riverside counties, south through the coastal foothills of San Diego County along the immediate coast at Palos Verdes Peninsula, Los Angeles County, and in the Tijuana River Valley, San Diego County.	Potential for nesting and foraging within the Project area.
Passerculus sandwichensis Belding's savannah sparrow	CE	Common but local permanent residents associated with pickleweed habitat, restricted to coastal salt marshes from southern Santa Barbara County to San Diego County.	Potential for nesting and foraging within Project vicinity. Reported from Mugu Lagoon. Also reported from Ormond Beach wetlands in a small patch of marsh between the power plant and the northwest fenceline.
Pelecanus occidentalis Brown pelican	FE, CE	Sandy coastal beaches and lagoons, waterfronts and pilings, and rocky cliffs.	Potential for foraging within the Project vicinity. Reported from Point Mugu to Ormond Beach.
Phalacrocorax auritus Double-crested cormorant	CSC	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins. A yearlong resident along the entire coast of California and on inland lakes, in fresh, salt, and estuarine waters.	Potential for occurrence within the Project area as a transient visitor, but appropriate foraging and nesting habitat is not present within the Project area. Reported from the Project vicinity. Potential to occur in the waterway at the entrance of the Ormond Beach power plant (MP 0.2).
Rallus longirostris levipes Light-footed clapper rail	FE, CE	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation.	Suitable habitat for this species exists within Point Mugu Naval Air Station. Nesting occurs at Point Mugu Naval Air Station.

Table 4.8-2B Special Status Wildlife Species Potentially Occurring in the Proposed Project Vicinity in the Oxnard Plain and Coastal Zone

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Riparia riparia Bank swallow	CT	Nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, or ocean to dig nesting hole.	Potential to occur within the Project area. Species has been documented using the Santa Clara River estuary. Potential for nesting and foraging within vertical banks in the Beardsley Wash.
Sterna elegans Elegant tern	FSC, CSC	Formerly a rare and irregular post-nesting visitor to coastal California. Large flocks now can be seen in most years off the southern California coast. Preferred habitats are inshore coastal waters, bays, estuaries, and harbors; rarely occurs far offshore, and never inland.	Potential for occurrence within the Project vicinity. Observed at NBVC Point Mugu.
Sterna antillarum browni California least tern	FE, CE	Nests at isolated beaches near bays and lagoons, San Francisco Bay to northern Baja California. Forages in estuaries. Colonial breeder on bare or sparsely vegetated flat substrates, sand beaches, alkali flats, landfills, or paved areas.	Potential to occur in the Project vicinity at Ormond Beach and Point Mugu Naval Air Station. Observed nesting at Ormond Beach and Point Mugu Naval Air Station.
Mammals			
Antrozous pallidus Palid bat	CSC	Riparian and brushland habitat; roosts in caves, mines, tunnels, and buildings.	Potential to occur in the vicinity of the entire Project area. May forage throughout the area. Roosting habitat or hibernacula is not expected.
Eumpops perotis Greater western mastiff-bat	FSC, CSC	Riparian and brushland habitat; roosts in caves, mines, tunnels, and buildings.	Potential to occur in the vicinity of the entire Project area. May forage through out the area. Roosting habitat or hibernacula is not expected.
Lepus californicus San Diego black-tailed jackrabbit	FSC, CSC	Chaparral and coastal sage scrub.	Potential to occur within the Project area.

Table 4.8-2B Special Status Wildlife Species Potentially Occurring in the Proposed Project Vicinity in the Oxnard Plain and Coastal Zone

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Myotis evotis Long-eared myotis	FSC	Riparian and brushland habitat; roosts in caves, mines, tunnels, and buildings.	Potential to occur in the vicinity of the entire Project area. May forage through out the area. Roosting habitat or hibernacula is not expected.
Myotis leibii Small-footed myotis	FSC	Riparian and brushland habitat; roosts in caves, mines, tunnels, and buildings.	Potential to occur in the vicinity of the entire Project area. May forage through out the area. Roosting habitat or hibernacula is not expected.
Myotis thysanodes Fringed myotis	FSC	Riparian and brushland habitat; roosts in caves, mines, tunnels, and buildings.	Potential to occur in the vicinity of the entire Project area. May forage through out the area. Roosting habitat or hibernacula is not expected.
Myotis yumanensis Yuma myotis	FSC, CSC	Riparian and brushland habitat; roosts in caves, mines, tunnels, and buildings.	Potential to occur in the vicinity of the entire Project area. May forage through out the area. Roosting habitat or hibernacula is not expected.
Tadarida brasiliensis Mexican free-tailed bat	---	Riparian and brushland habitat; roosts in caves, mines, tunnels, and buildings.	Potential to occur in the Project vicinity at Ormond Beach. Common species at Point Mugu Naval Air Station.

Codes:

FE = Federally listed as endangered.
FT = Federally listed as threatened.
FD = Federally de-listed.
FSC = Federal species of concern.
CE = State listed as endangered.
CT = State listed as threatened.
CSC = California species of concern.
CFP = California Fully Protected.
ESU = Evolutionarily Significant Unit.

Sources: CNDDB (California Department of Fish and Game 2004), Santa Clara River Enhancement and Management Plan Study, and River Park Specific Plan EIR.

Table 4.8-3 Tree Rows Occurring Along the Proposed Center Road Routes

Route	MP	Tree ID No.	Species	Maximum Linear Feet (Meters) that Could Fall Within the Row	Relationship to Alignment	Average DBH	Average Height	Nesting Activity?	Notes
Proposed Route	0.25	1	Myoporum/ Eucalyptus	80 (24.4)	Perpendicular	10	20	No	-
Proposed Route	4	2	Eucalyptus	1,500 (457.2)	West	35	50	No	~55 individuals over 20 inches DBH
Proposed Route	4.1	3	Poplar	80 (24.4)	Perpendicular on west edge	5	25	No	-
Proposed Route	4.15	4	Eucalyptus	80 (24.4)	Perpendicular on east edge	20	40	No	-
Proposed Route	4.8	5	Eucalyptus	500 (152.4)	West	20	50	No	-
Proposed Route	4.8	6	Cedar	100 (30.5)	South	6	12	No	Young
Proposed Route	5.2	7	Eucalyptus	1,000 (304.8)	East	15	15	No	Topped
Proposed Route	5.3	8	Eucalyptus	80 (24.4)	Perpendicular on east edge	10	40	No	Young
Proposed Route	5.8	9	Ironwood	2,000 (609.6)	West	5	10	No	Topped
ALT 1 and ALT 2	2.9	10	Eucalyptus	1,000 (304.8)	Southeast	50	60	No	Currently being pruned/thinned.
ALT 1 and ALT 2	3	11	Eucalyptus	350 (106.7)	Southeast	25	45	No	-
ALT 1 and ALT 2	3	12	Eucalyptus	12 (3.7)	Northwest	25	45	No	-
ALT 2	4	13	Eucalyptus	1,000 (304.8)	Southeast	15	45	No	-
ALT 2	5.2	14	Eucalyptus	600 (182.9)	Southeast	10	30	No	-
Proposed Route	7.5	15	Eucalyptus/ Ironwood	750 (228.6)	West	15	40	No	-
ALT 1	12.9	16	Eucalyptus	80 (24.4)	South-southwest	10	25	No	-
ALT 1	12.9	17	Eucalyptus	150 (45.7)	South-southwest	10	25	No	-
ALT 1	12.9	18	Eucalyptus	80 (24.4)	North-northwest	15	30	No	-

Table 4.8-3 Tree Rows Occurring Along the Proposed Center Road Routes

Route	MP	Tree ID No.	Species	Maximum Linear Feet (Meters) that Could Fall Within the Row	Relationship to Alignment	Average DBH	Average Height	Nesting Activity?	Notes
ALT 1	12.9	19	Eucalyptus	150 (45.7)	South-southwest	7	12	No	-
ALT 1	11.9	20	Eucalyptus/ California Pepper	200 (61.0)	North-northwest	10	25	No	-
ALT 1	11.8	21	Eucalyptus/ Myoporum	1,200 (365.8)	West	5	12	No	-
ALT 1	11.6	22	Eucalyptus	200 (61.0)	West	15	35	No	-
ALT 1	11.4	23	Eucalyptus	700 (213.4)	West	15	35	No	-
ALT 1	10.2	24	Eucalyptus	80 (24.4)	Southeast	15	40	No	May be outside of ROW
ALT 1	10	25	Eucalyptus	80 (24.4)	Southeast	15	40	No	May be outside of ROW
ALT 1	9.8	26	Eucalyptus	80 (24.4)	Southeast	15	40	No	May be outside of ROW
ALT 1	6.5	27	Eucalyptus	80 (24.4)	East	10	20	No	-
ALT 1	6.1	28	Eucalyptus	80 (24.4)	East	12	30	No	-
ALT 1	4.5	29	Eucalyptus	2,500 (762.0)	West	15	40	No	-

Key:
DBH = Diameter at breast height.

Table 4.8-4 Vegetation Communities on the Proposed Line 225 Pipeline Loop Routes

MP	MP	Proposed Route - Vegetation	Preferred - Aquatic	Alternative	Alternative - Aquatic
0	1	Developed Land, Coastal Live Oak Woodland, Riversidian Sage Scrub, Non-Native Grassland	Oro Fino Canyon drainage	Developed Land, Coastal Live Oak Woodland, Riversidian Sage Scrub, Non-Native Grassland	Oro Fino Canyon drainage
1	2	Developed Land, Non-Native Grassland, Mulefat Scrub	Two unnamed drainages, and Oakdale Canyon drainage.	Developed Land, Non-Native Grassland, Mulefat Scrub	Two unnamed drainages, and Oakdale Canyon drainage.
2	3	Developed Land, Coastal Live Oak Woodland, Non-Native Grassland, Southern Cottonwood-Willow Riparian Forest	South Fork Santa Clara River, and one unnamed drainage canal.	Developed Land, Coastal Live Oak Woodland, Non-Native Grassland, Southern Cottonwood-Willow Riparian Forest	South Fork Santa Clara River, and one unnamed drainage canal.
3	4	Developed Land, Southern Cottonwood-Willow Riparian Forest	South Fork Santa Clara River	Developed Land, Southern Cottonwood-Willow Riparian Forest	South Fork Santa Clara River
4	5	Developed Land		Developed Land	
5	6	Developed Land, Southern Cottonwood-Willow Riparian Forest	South Fork Santa Clara River	Developed Land, Southern Cottonwood-Willow Riparian Forest	South Fork Santa Clara River
6	7	Developed Land, Riversidian Sage Scrub, Non-Native Grassland, Valley Oak Woodland		Developed Land, Non-Native Grassland, Valley Oak Woodland	
7	End	Developed Land, Riversidian Sage Scrub, Non-Native Grassland, Valley Oak Woodland		Developed Land, Riversidian Sage Scrub, Non-Native Grassland, Valley Oak Woodland	

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Table 4.8-5A Special Status Plant Species Potentially Occurring in the Vicinity of the Proposed Line 225 Pipeline Loop

Scientific Name Common Name	Listing Status	Growth Form	Flowering Period	General Habitat Characteristics	Potential to Occur in Project Area
Astragalus brauntonii Braunton's milk-Vetch	FE, 1B	perennial herb	Mar-July	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland/recent burns or disturbed areas, carbonate soils.	Low potential for occurrence in Project vicinity. Limited valley and foothill grassland habitat.
Berberis nevinii Nevin's barberry	FE, CE, CNPS 1B	evergreen shrub	Mar-Apr	Chaparral, cismontane woodland, coastal scrub, riparian scrub. Sandy or gravelly sites. 295-825 m.	Has occurred in the San Francisquito Canyon near the confluence of the Santa Clara River. Has the potential to occur within Southern cottonwood-willow riparian forest, coast live oak woodland and Riversidian sage scrub communities in the Project area.
Calochortus clavatus var. *gracilis* slender mariposa lily	CNPS 1B	perennial herb	Mar-May	Chaparral, coastal scrub. 360-1,000 m.	Has the potential to occur within Riversidian sage scrub communities in the Project area. Species has been documented in the vicinity of the Project area.
Calochortus weedii var. *vestus* Late-flowering mariposa lily	1B	perennial herb	May-July	Chaparral, coastal scrub.	Has the potential to occur within Riversidian sage scrub communities in the Project area.
Calochortus plummerae Plummer's mariposa lily	CNPS 1B	perennial herb	May-Jul	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley, and foothill grassland. Granitic, rocky sites. 100-1,700 m.	Has the potential to occur within Riversidian sage scrub and oak woodland communities in the Project area. There are historic occurrences of this species in the vicinity of the Line 225 Pipeline Loop.
Calystegia peirsonii Peirson's morning-glory	CNPS 4	perennial herb	May-June	Chaparral, coastal scrub.	Species has been documented in the vicinity of the Project area.

Table 4.8-5A Special Status Plant Species Potentially Occurring in the Vicinity of the Proposed Line 225 Pipeline Loop

Scientific Name Common Name	Listing Status	Growth Form	Flowering Period	General Habitat Characteristics	Potential to Occur in Project Area
Centromadia parryi ssp. *Australis* Southern tarplant	1B	deciduous shrub	July-Nov	Coastal scrub and sandstone rocky outcrops.	No suitable habitat occurs within the Project area.
Chorizanthe parryi var. *fernandina* San Fernando Valley spineflower	FC, CE, CNPS 1B	annual herb	Apr-Jun	Coastal scrub in sandy areas. 150-1,220 m.	Has the potential to occur within Riversidian sage scrub, and Southern cottonwood-willow riparian forest communities in the Project area. There is a known occurrence of this species in the vicinity of Line 225 Pipeline Loop.
Deinandra minthornii Santa Susana tarplant	CR 1B	deciduous shrub	July-Nov	Coastal scrub and sandstone rocky outcrops.	No suitable habitat occurs within the Project area.
Delphinium parryi ssp. *blockmaniae* Dune larkspur	1B	perennial herb	April-May	Maritime chaparral, coastal dunes.	Species documented in the vicinity of the Project area.
Dodecahema leptoceras Slender-horned spineflower	FE, CE, CNPS 1B	annual herb	Apr-Jun	Chaparral, cismontane woodland, coastal scrub on alluvial fans. Sandy sites. 200-760 m.	Has the potential to occur within alluvial fan sage scrub in the Project vicinity. There are historic occurrences all around the Line 225 Pipeline Loop but the species has not been seen here since 1937.
Dudleya blochmaniae ssp. *Blochmaniae* Blochman's dudleya	FC 1B	annual herb	April-June	Coastal bluff scrub/scrub, serpentine soils	Low potential for occurrence within Project area.
Dudleya multicaulis Many-stemmed dudleya	FC 1B	perennial herb	May-July	Chaparral, coastal scrub and grasslands	Low potential for occurrence within Project area.
Dudleya parva Conejo dudleya	FT 1B	perennial herb	May-July	Chaparral, coastal scrub	No suitable habitat within Project area.

Table 4.8-5A Special Status Plant Species Potentially Occurring in the Vicinity of the Proposed Line 225 Pipeline Loop

Scientific Name Common Name	Listing Status	Growth Form	Flowering Period	General Habitat Characteristics	Potential to Occur in Project Area
Harpagonella palmeri var. *Palmeri* Palmer's grappling hook	CNPS 4	annual herb	Mar-April	Chaparral, coastal scrub, valley, and foothill grasslands.	Species documented in the vicinity of the Project area.
Helianthus nuttallii ssp. *parishii* Los Angeles sunflower	CNPS 1A	perennial herb	Aug-Oct	Coastal saltwater and freshwater marshes and swamps. 10-1,675 m.	Unlikely to occur; suitable habitat for this species does not occur within the Project area. This species was presumed extinct until a single population was discovered near the mouth of the Santa Clara River in 2002. This species is not discussed further.
Erodium macrophyllum Round-leaved filaree	CNPS 2	annual herb	Mar-May	Woodland and valley and foothill grasslands.	Low potential. Limited habitat within Project area.
Juglans californica var. *Californica* Southern California black walnut	CNPS 4	Tree	N/A	Chaparral, woodlands, and coastal scrub.	Species documented in the vicinity of the Project area.
Malacothamnus davidsonii Davidson's bush mallow	1B	deciduous shrub	June-Jan	Chaparral, woodlands, coastal sage scrub, riparian woodland.	Suitable habitat within Project vicinity.
Nolina cismontana Chaparral nolina	1B	evergreen shrub	April-June	Chaparral, coastal scrub.	Low potential for occurrence. Limited habitat within Project area.
Opuntia basilaris var. *brachyclada* Short-joint beavertail	CNPS 1B	shrub (succulent stem)	Apr-Jun	Chaparral, Joshua tree woodland, Mohavean desert scrub, pinyon and juniper woodland. 425-1,800 m.	Has the potential to occur based on known occurrences of this species along the Line 225 Pipeline Loop near MP 0.0.

Table 4.8-5A Special Status Plant Species Potentially Occurring in the Vicinity of the Proposed Line 225 Pipeline Loop

Scientific Name Common Name	Listing Status	Growth Form	Flowering Period	General Habitat Characteristics	Potential to Occur in Project Area
Orcuttia californica California Orcutt grass	FE, CE, CNPS 1B	annual herb	Apr-Aug	Vernal pools. 15-660 m.	Has the potential to occur based on known occurrences in the Santa Clarita Valley. Occurs within vernal pools, but no vernal pools are within in the Project area. Not discussed further in this report.
Pentachaeta lyonii Lyon's pentachaeta	FE CE 1B	annual herb	Mar-Aug	Chaparral, coastal scrub, valley and foothill grassland.	Low potential for occurrence. Limited habitat within Project area.
Perideridia pringlei Pringle's yampah	CNPS 4	perennial herb	April-Aug	Chaparral, woodland, coastal scrub, and pinyon and juniper woodlands.	Low potential for occurrence. Limited habitat within Project area.
Senecio aphanactis rayless ragwort	CNPS 2	annual herb	Jan-Apr	Chaparral, cismontane woodland, coastal scrub. Occurs in alkaline soils. 15-800 m.	Has the potential to occur in oak woodland and Riversidian sage scrub communities in the Project area. There is a known occurrence of this species along the Line 225 Pipeline Loop between MP 2.0 and 5.0.

Codes:

FC = Federal candidate species for listing.
FT = Federally listed as threatened.
FE = Federally listed as endangered.
CR = Listed by California as Rare.
CE = Listed by California as endangered.
CNPS = California Native Plant Society.

1A = Presumed extinct in California.
1B = Rare, threatened, or endangered in California and elsewhere.
2 = Rare in California but more common elsewhere.
4 = Plant of limited distribution - a watch list.

Sources and Status codes derived from CNDDB (California Department of Fish and Game 2004) and CNPS (2003).

Table 4.8-5B Special Status Wildlife Species Potentially Occurring in the Vicinity of the Proposed Line 225 Pipeline Loop

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Insects			
Plebulina emigdionis San Emigdio blue butterfly	FSC	Streambeds, washes, or alkaline areas. Associated with *Atriplex canescens*.	Potential to occur within the Project area near the Santa Clara River, South Fork Santa Clara River, and San Francisquito Creek.
Freshwater Fish			
Gila orcutti Arroyo chub	CSC	Slow water stream sections with mud or sand bottoms. Feed heavily on aquatic vegetation and associated invertebrates.	Potential to occur at pipeline crossings in the Santa Clara River, South Fork Santa Clara River, and San Francisquito Creek.
Catostomus santaanae Santa Ana sucker	FT, CSC	Endemic to Los Angeles Basin south coastal streams. Populations in the Santa Clara River watershed are not listed under the federal ESA	Potential to occur at pipeline crossings in the Santa Clara River, South Fork Santa Clara River, and San Francisquito Creek.
Gasterosteus aculeatus williamsoni Unarmored threespine stickleback	FE, CE	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small southern California streams.	Potential to occur at pipeline crossings in the Santa Clara River, South Fork Santa Clara River, and San Francisquito Creek.
Oncorhynchus mykiss Steelead trout (Southern California ESU)	FE, CSC	Streams, rivers with cool water, deep pools, and gravelly substrate.	Steelhead have not been identified in the Santa Clara River east of Piru Creek.
Amphibians			
Bufo californicus Arroyo toad	FE, CSC	Found in riparian habitats with sandy streambeds, with cottonwood, sycamore, and willow trees adjacent to shallow pools where the toad may sit in the water while partially exposed above.	Potential to occur at pipeline crossings in the Santa Clara River, South Fork Santa Clara River, and San Francisquito Creek. An Individual has been found at the Santa Clara River east of Interstate 5.
Rana aurora draytonii California red-legged frog	FT, CSC, CP	Needs habitat with permanent water sources.	Low potential to occur within Project area.
Spea hammondii Western spadefoot	FSC, CSC	Occurs primarily in grassland situations, but occasional populations also occur in valley-foothill hardwood woodlands. Vernal pools essential for breeding and egg-laying.	Potential to occur at pipeline crossings in the Santa Clara River, South Fork Santa Clara River and San Francisquito Creek. Species documented in the vicinity of the Project area.
Taricha torosa torosa Coast range newt	CSC	Grasslands and woodlands; breeds in ponds with slow flowing water.	Low potential to occur within Project area. Limited flow within Santa Clara River, South Fork Santa Clara River and San Francisquito Creek.

Table 4.8-5B Special Status Wildlife Species Potentially Occurring in the Vicinity of the Proposed Line 225 Pipeline Loop

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Reptiles			
Anniella pulchra pulchra Silvery legless lizard	FSC, CSC	Dry washes, pine, oak, and riparian woodlands, chaparral.	Potential for occurrence within the non-developed areas of the Line 225 Pipeline Loop.
Clemmys marmorata pallida Southwertern pond turtle	FSC, CSC, CP	Streams, ponds, freshwater marshes, and lakes.	Potential to occur within riverbeds.
Phrynosoma coronatum blainvillei San Diego horned lizard	CSC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions. Prefers rocky or shallow sandy soils.	Potential for occurrence within the non-developed areas of the Line 225 Pipeline Loop.
Phrynosoma coronatum frontale California horned lizard	FSC, CSC, CP	Riparian woodlands, chaparral, and annual grasslands.	Potential for occurrence within the non-developed areas of the Line 225 Pipeline Loop.
Thamnophis hammondii Two-striped garter snake	FSC, CSC, CP	Perennial and intermittent streams with rocky or sandy beds with dense riparian vegetation.	Potential to occur within the Santa Clara River.
Birds			
Accipiter cooperi Cooper's hawk	CSC	Stands of live oak and riparian woodlands.	Potential to occur within the Project area. Species has been documented in the area.
Accipiter cooperi Sharp-shinned hawk	CSC	Woodlands, chaparral and scrub/shrub habitat.	Potential to occur within the Project vicinity. Species has been documented in the Project area.
Agelaius tricolor Tricolored blackbird	FSC, CSC	Freshwater wetlands and riparian scrub.	Potential to occur within the Project area. Species has been documented in the Project area.
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	FSC, CSC	Coastal sage scrub.	Potential to occur within the Project area. Species has been documented in the Project area.
Amphispiza belli belli Bell's sage sparrow	FSC, CSC	Saltbush scrub and chaparral.	Potential to occur within the Project area. Species has been documented in the Project area.
Athene cunicularia hypugea Western burrowing owl	FSC, CSC	Grasslands and open areas with sparse vegetation.	Potential to occur within the Project area.
Aquila chrysaetos Golden eagle	CSC, CFP	Open habitat, mountains, and deserts.	Potential for occurrence is low, and nesting habitat is limited.
Asio otus Long-eared owl	CSC	Riparian and live oak areas with dense vegetation.	Low potential to occur within the Project area.
Buteo regalis Ferruginous hawk	FSC, CSC	Grasslands, agricultural fields, and scrub habitat.	Low potential to occur within the Project area.

Table 4.8-5B Special Status Wildlife Species Potentially Occurring in the Vicinity of the Proposed Line 225 Pipeline Loop

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FC, CE	Nesting along river systems with riparian vegetation.	Potential to occur within the Project area. Species has been documented in the Project area.
Circus cyaneus Northern harrier	CSC	Freshwater wetlands, grasslands, and agricultural fields.	Potential to occur within the Project area.
Dendroica petechia brewsteri Yellow warbler	CSC	Riparian and woodland habitat.	Species has been observed within the Project area.
Elanus leucurus White-tailed kite	CFP	Open vegetation and uses woodland areas for cover.	Species has been documented nesting in the Project area.
Empidonax traillii extimus Southwestern willow flycatcher	FE, CE	Riparian woodlands with water and low willow thickets.	Low potential to occur within the Project area.
Eremophila alpestris actia California horned lark	CSC	Grasslands, disturbed areas, and agricultural fields.	Potential to occur within the Project area.
Falco columbarius Merlin	CSC	Wetlands, woodlands, agricultural fields, and grasslands.	Potential to occur within the Project area.
Falco mexicanus Prairie falcon	CSC	Grasslands, agricultural fields, scrub habitat, cliff faces.	Low potential to occur within the Project area.
Icteria virens Yellow-breasted chat	CSC	Riparian and woodland habitat with dense understory vegetation.	Low potential to occur within the Project area.
Lanius ludovicianus Loggerhead shrike	FSC, CSC	Grasslands with pockets of shrubs, trees, fences or other rooting sites.	Species documented within the Project area.
Piranga rubra Summer tanager	CSC	Cottonwood-willow riparian habitat along rivers and streams.	Potential to occur within the Project area; Santa Clara River. Species has been observed in the area.
Polioptila californica Coastal California gnatcatcher	FT, CSC	Coastal sage scrub in areas with flat or sloping terrain.	Potential to occur within the Project area.
Riparia riparia Bank swallow	CT	Nest in riparian and lowland habitats.	Low potential to occur within the Project area.
Vireo bellii pusillus Least Bell's vireo	FE, CE	Nests in Southern California during summer, in low riparian areas in vicinity of water or in dry river bottoms; below 2,000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, mulefat, and mesquite.	Potential to occur within Southern cottonwood willow riparian forest within the Project area at the Santa Clara River, South Fork Santa Clara River, and San Francisquito Creek. Reported from Project vicinity in a streambed supporting sycamores and other shrubs.

Table 4.8-5B Special Status Wildlife Species Potentially Occurring in the Vicinity of the Proposed Line 225 Pipeline Loop

Scientific Name Common Name	Listing Status	General Habitat Characteristics	Potential to Occur in Project Area
Mammals			
Antrozous pallidus Pallid bat	CSC	Aird habitats such as grasslands, shrublands, woodlands, and rocky outcrops, cliffs.	Potential to occur within the Project area. Species has been documented in the Project area.
Bassariscus astutus Ringtail	CFP	Shrubland habitats in rocky areas or riparian habitats.	Low potential to occur within the Project area.
Corynorhinus townsendii pallescens Pale big-eared bat	FSC, CSC	Habitats include conifer and oak woodlands, grasslands, and high elevation forests and meadows.	Potential to occur along the Santa Clara River.
Felis concolor browni Mountain lion	CSC	Occurs in a variety of habitat such as scrub and forested habitats.	The Santa Clara River is a known corridor for the species, and has been observed within the Project area.
Euderma maculata Spotted bat	FSC, CSC	Deserts, scrublands, chaparral, and woodland habitats.	Potential to occur within the Project area. Species has been documented in the Project area.
Eumops perotis Western mastiff bat	FSC, CSC	Arid lowlands and coastal basins with rocky terrain with crevices for day-roosts.	Low potential to occur within the Project area.
Lepus californicus bennettii San Diego black-tailed jackrabbit	FSC, CSC	Chaparral and coastal sage scrub.	Potential to occur within the Project area. Species has been documented in the Project area.
Neotoma lepida intermedia San Diego desert woodrat	CSC	Chaparral, and coastal sage scrub.	Potential to occur within the Project area. Species has been documented in the Project area.

Codes:

FE = Federally listed as endangered.
FT = Federally listed as threatened.
FD = Federally de-listed.
FSC = Federal species of concern.
CE = State listed as endangered.
CT = State listed as threatened.
CSC = California species of concern.
CFP = California Fully Protected.
CP = California Protected.

Sources: CNDDB (California Department of Fish and Game 2004).